# Package 'chipenrich.data'

October 28, 2025

```
Title Companion package to chipenrich
```

Version 2.33.0

Date 2023-03-29

**Description** Supporting data for the chipenrich package. Includes predefined gene sets, gene locus definitions, and mappability estimates.

**biocViews** ChIPSeq, Epigenetics, FunctionalGenomics, GeneSetEnrichment, HistoneModification, Regression

**Depends** R (>= 3.4.0)

**Imports** AnnotationDbi, BiocGenerics, methods, GenomicRanges, GenomeInfoDb, IRanges, readr, rtracklayer, S4Vectors, utils

License GPL-3

**Encoding** UTF-8

LazyData true

Suggests BiocStyle, devtools, knitr, rmarkdown, roxygen2, testthat,

GO.db, org.Dm.eg.db, org.Dr.eg.db, org.Hs.eg.db, org.Mm.eg.db,

org.Rn.eg.db, TxDb.Dmelanogaster.UCSC.dm3.ensGene,

TxDb.Dmelanogaster.UCSC.dm6.ensGene,

TxDb.Drerio.UCSC.danRer10.refGene,

TxDb.Hsapiens.UCSC.hg19.knownGene,

TxDb.Hsapiens.UCSC.hg38.knownGene,

TxDb.Mmusculus.UCSC.mm9.knownGene,

TxDb.Mmusculus.UCSC.mm10.knownGene,

TxDb.Rnorvegicus.UCSC.rn4.ensGene,

TxDb.Rnorvegicus.UCSC.rn5.refGene,

TxDb.Rnorvegicus.UCSC.rn6.refGene

VignetteBuilder knitr

RoxygenNote 6.1.1

Maintainer Kai Wang <wangdaha@umich.edu>

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<b>Author</b> Ryan P. Welch [aut, cph],
Chee Lee [aut],
Raymond G. Cavalcante [aut]
Kai Wang [cre],
Laura J. Scott [ths],
Maureen A. Sartor [ths]

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# Description

Supporting data for the chipenrich package. Includes pre-defined gene sets, gene locus definitions, and mappability estimates.

enhancer.dnase\_thurman.0

Enhancer locations

# Description

A GRanges with all the enhancer locations for hg19. The locations were found using a combination of DNAse data and from Thurman et al (PMID: 22955617)

# Usage

enhancer.dnase\_thurman.0

8 GeneSet-class

#### **Format**

A GRanges object with the following mcols:

gene\_id The Entrez ID for the TSS
symbol The gene symbol for the TSS

gene.enh.desc

Gene-Enhancer descriptives

#### **Description**

A data frame with gene-level descriptions of enhancer properties using enhancers.dnase\_thurman.0. Used in the adjustment of proximity test to enhancers.

gene\_id The Entrez ID for the a gene

**avg\_denh\_emp** The empirical average distance to an enhancer from 90 ENCODE ChIP-seq datasets. This is used as the adjustment.

num\_enh The number of enhancers assigned to the gene, defined by closest gene TSS

**avgdenh** The theoretical average distance to an enhancer assuming every base pair on the genome is equally likely to have a peak binding.

### Usage

gene.enh.desc

## Format

An object of class data. frame with 21600 rows and 4 columns.

GeneSet-class

Class "GeneSet"

## Description

Class for storing sets of genes and their corresponding metadata.

# **Objects from the Class**

Objects can be created by calls of the form new("GeneSet").

These objects are used internally by the chipenrich package and users will not likely need to create these.

# **Slots**

set.gene: Object of class "environment". Maps from geneset IDs to lists of Entrez gene IDs. type: Object of class "character". The formal name for this collection of genesets. set.name: Object of class "environment". Maps from geneset IDs to their descriptions/names. all.genes: Object of class "character". A set of all genes present across every geneset. organism: Object of class "character". Organism code for gene IDs.

dburl: Object of class "character". Web URL for this collection of genesets.

#### Note

Not typically accessed by the user - this is used internally by the chipenrich package.

#### Author(s)

Ryan Welch <welchr@umich.edu>

## **Examples**

```
# Show information about class.
showClass("GeneSet")

# What is stored inside a geneset object?
data("geneset.metabolite.hsa");
str(geneset.metabolite.hsa);

# How are the mappings from geneset IDs to gene IDs stored?
ls.str(geneset.metabolite.hsa@set.gene);
```

```
geneset.biocarta_pathway.hsa
```

geneset.biocarta\_pathway.hsa genesets for BioCarta

## **Description**

BioCarta (biocarta\_pathway) genesets. All genesets are required to have >= 10 Entrez IDs. Built on Mon Oct 16 18:46:04 2017.

## Usage

```
geneset.biocarta_pathway.hsa
```

## **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. GOBP.

dburl A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

## Source

https://cgap.nci.nih.gov/Pathways/BioCarta\_Pathways

```
{\it geneset.biocarta\_pathway.mmu} \\ {\it geneset.biocarta\_pathway.mmu}
```

# Description

GeneSet object which stores information about sets of genes.

These objects are used internally by the chipenrich package.

# Usage

```
data(geneset.biocarta_pathway.mmu)
```

#### **Format**

See GeneSet-class for a description of the format.

#### See Also

For more information about genesets: chipenrich.data

For information regarding how the genesets were created: browseVignettes("chipenrich.data")

```
{\it geneset.biocarta\_pathway.rno} \\ {\it geneset.biocarta\_pathway.rno}
```

# Description

GeneSet object which stores information about sets of genes.

These objects are used internally by the chipenrich package.

## Usage

```
data(geneset.biocarta_pathway.rno)
```

# **Format**

See GeneSet-class for a description of the format.

## See Also

For more information about genesets: chipenrich.data

geneset.ctd.hsa 11

geneset.ctd.hsa

geneset.ctd.hsa genesets for Comparative Toxicogenomics Database

## **Description**

Comparative Toxicogenomics Database (ctd) genesets. All genesets are required to have >= 10 Entrez IDs. Built on Mon Oct 16 18:46:11 2017.

#### Usage

geneset.ctd.hsa

## **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. GOBP.

**dburl** A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

## Source

http://ctdbase.org

geneset.ctd.mmu

geneset.ctd.mmu genesets for Comparative Toxicogenomics Database

# Description

Comparative Toxicogenomics Database (ctd) genesets. All genesets are required to have >= 10 Entrez IDs. Built on Sat Nov 10 15:56:37 2018.

## Usage

geneset.ctd.mmu

12 geneset.cytoband.hsa

#### **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. GOBP.

dburl A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

#### Source

http://ctdbase.org

geneset.cytoband.hsa geneset.cytoband.hsa

# Description

GeneSet object which stores information about sets of genes.

These objects are used internally by the chipenrich package.

## Usage

```
data(geneset.cytoband.hsa)
```

# **Format**

See GeneSet-class for a description of the format.

# See Also

For more information about genesets: chipenrich.data

geneset.drug\_bank.hsa 13

geneset.drug\_bank.hsa geneset.drug\_bank.hsa genesets for DrugBank

## **Description**

DrugBank (drug\_bank) genesets. All genesets are required to have >= 10 Entrez IDs. Built on Mon Oct 16 18:46:13 2017.

## Usage

geneset.drug\_bank.hsa

#### **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. GOBP.

**dburl** A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

# Source

https://www.drugbank.ca

geneset.drug\_bank.mmu geneset.drug\_bank.mmu

## **Description**

GeneSet object which stores information about sets of genes.

These objects are used internally by the chipenrich package.

## Usage

data(geneset.drug\_bank.mmu)

#### **Format**

See GeneSet-class for a description of the format.

# See Also

For more information about genesets: chipenrich.data

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```
geneset.drug_bank.rno geneset.drug_bank.rno
```

#### **Description**

GeneSet object which stores information about sets of genes.

These objects are used internally by the chipenrich package.

## Usage

```
data(geneset.drug_bank.rno)
```

#### **Format**

See GeneSet-class for a description of the format.

#### See Also

For more information about genesets: chipenrich.data

For information regarding how the genesets were created: browseVignettes("chipenrich.data")

geneset.GOBP.dme

geneset.GOBP.dme genesets for Drosophila melanogaster

## **Description**

Gene Ontology Biological Process (GOBP) genesets for Drosophila melanogaster. All genesets are required to have >= 10 Entrez IDs. Built on Mon Oct 16 16:24:38 2017.

# Usage

```
geneset.GOBP.dme
```

#### **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. GOBP.

dburl A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

#### Source

```
org.Dm.eg.db_3.4.2 and GO.db_3.4.2
```

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geneset.GOBP.dre

geneset.GOBP.dre genesets for Danio rerio

## **Description**

Gene Ontology Biological Process (GOBP) genesets for Danio rerio. All genesets are required to have >= 10 Entrez IDs. Built on Mon Oct 16 16:25:08 2017.

#### Usage

geneset.GOBP.dre

#### **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. GOBP.

**dburl** A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

## Source

org.Dr.eg.db\_3.4.2 and GO.db\_3.4.2

geneset.GOBP.hsa

geneset.GOBP.hsa genesets for Homo sapiens

# Description

Gene Ontology Biological Process (GOBP) genesets for Homo sapiens. All genesets are required to have >= 10 Entrez IDs. Built on Mon Oct 16 16:22:22 2017.

## Usage

geneset.GOBP.hsa

16 geneset.GOBP.mmu

#### **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. GOBP.

dburl A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

#### **Source**

```
org.Hs.eg.db_3.4.2 and GO.db_3.4.2
```

geneset.GOBP.mmu

geneset.GOBP.mmu genesets for Mus musculus

### **Description**

Gene Ontology Biological Process (GOBP) genesets for Mus musculus. All genesets are required to have >= 10 Entrez IDs. Built on Mon Oct 16 16:23:23 2017.

## Usage

geneset.GOBP.mmu

## **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. GOBP.

dburl A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

#### Source

org.Mm.eg.db 3.4.2 and GO.db 3.4.2

geneset.GOBP.rno 17

geneset.GOBP.rno

geneset.GOBP.rno genesets for Rattus norvegicus

## **Description**

Gene Ontology Biological Process (GOBP) genesets for Rattus norvegicus. All genesets are required to have >= 10 Entrez IDs. Built on Mon Oct 16 16:24:10 2017.

#### Usage

geneset.GOBP.rno

#### **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. GOBP.

**dburl** A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

## Source

org.Rn.eg.db\_3.4.2 and GO.db\_3.4.2

 ${\tt geneset.GOCC.dme}$ 

geneset.GOCC.dme genesets for Drosophila melanogaster

# Description

Gene Ontology Cellular Component (GOCC) genesets for Drosophila melanogaster. All genesets are required to have >= 10 Entrez IDs. Built on Mon Oct 16 16:24:38 2017.

## Usage

geneset.GOCC.dme

18 geneset.GOCC.dre

#### **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. GOBP.

dburl A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

#### **Source**

org.Dm.eg.db\_3.4.2 and GO.db\_3.4.2

geneset.GOCC.dre

geneset.GOCC.dre genesets for Danio rerio

### **Description**

Gene Ontology Cellular Component (GOCC) genesets for Danio rerio. All genesets are required to have >= 10 Entrez IDs. Built on Mon Oct 16 16:25:08 2017.

# Usage

geneset.GOCC.dre

## **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. GOBP.

dburl A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

#### Source

org.Dr.eg.db 3.4.2 and GO.db 3.4.2

geneset.GOCC.hsa 19

geneset.GOCC.hsa

geneset.GOCC.hsa genesets for Homo sapiens

## **Description**

Gene Ontology Cellular Component (GOCC) genesets for Homo sapiens. All genesets are required to have >= 10 Entrez IDs. Built on Mon Oct 16 16:22:22 2017.

#### Usage

geneset.GOCC.hsa

#### **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. GOBP.

**dburl** A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

## Source

org.Hs.eg.db\_3.4.2 and GO.db\_3.4.2

geneset.GOCC.mmu

geneset.GOCC.mmu genesets for Mus musculus

# Description

Gene Ontology Cellular Component (GOCC) genesets for Mus musculus. All genesets are required to have >= 10 Entrez IDs. Built on Mon Oct 16 16:23:23 2017.

## Usage

geneset.GOCC.mmu

20 geneset.GOCC.rno

#### **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. GOBP.

dburl A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

#### **Source**

org.Mm.eg.db\_3.4.2 and GO.db\_3.4.2

geneset.GOCC.rno

geneset.GOCC.rno genesets for Rattus norvegicus

#### **Description**

Gene Ontology Cellular Component (GOCC) genesets for Rattus norvegicus. All genesets are required to have >= 10 Entrez IDs. Built on Mon Oct 16 16:24:10 2017.

## Usage

geneset.GOCC.rno

## **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. GOBP.

dburl A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

#### Source

```
org.Rn.eg.db 3.4.2 and GO.db 3.4.2
```

geneset.GOMF.dme 21

geneset.GOMF.dme

geneset.GOMF.dme genesets for Drosophila melanogaster

## **Description**

Gene Ontology Molecular Function (GOMF) genesets for Drosophila melanogaster. All genesets are required to have >= 10 Entrez IDs. Built on Mon Oct 16 16:24:38 2017.

#### Usage

geneset.GOMF.dme

#### **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. GOBP.

**dburl** A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

## Source

org.Dm.eg.db\_3.4.2 and GO.db\_3.4.2

geneset.GOMF.dre

geneset.GOMF.dre genesets for Danio rerio

# Description

Gene Ontology Molecular Function (GOMF) genesets for Danio rerio. All genesets are required to have >= 10 Entrez IDs. Built on Mon Oct 16 16:25:08 2017.

## Usage

geneset.GOMF.dre

22 geneset.GOMF.hsa

#### **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. GOBP.

dburl A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

#### **Source**

```
org.Dr.eg.db_3.4.2 and GO.db_3.4.2
```

geneset.GOMF.hsa

geneset.GOMF.hsa genesets for Homo sapiens

## **Description**

Gene Ontology Molecular Function (GOMF) genesets for Homo sapiens. All genesets are required to have >= 10 Entrez IDs. Built on Mon Oct 16 16:22:22 2017.

## Usage

geneset.GOMF.hsa

## **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. GOBP.

dburl A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

#### Source

```
org.Hs.eg.db 3.4.2 and GO.db 3.4.2
```

geneset.GOMF.mmu 23

geneset.GOMF.mmu

geneset.GOMF.mmu genesets for Mus musculus

## **Description**

Gene Ontology Molecular Function (GOMF) genesets for Mus musculus. All genesets are required to have >= 10 Entrez IDs. Built on Mon Oct 16 16:23:23 2017.

#### Usage

geneset.GOMF.mmu

#### **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. GOBP.

**dburl** A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

## Source

org.Mm.eg.db\_3.4.2 and GO.db\_3.4.2

geneset.GOMF.rno

geneset.GOMF.rno genesets for Rattus norvegicus

# Description

Gene Ontology Molecular Function (GOMF) genesets for Rattus norvegicus. All genesets are required to have >= 10 Entrez IDs. Built on Mon Oct 16 16:24:10 2017.

## Usage

geneset.GOMF.rno

24 geneset.hallmark.hsa

#### **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. GOBP.

dburl A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

#### **Source**

```
org.Rn.eg.db_3.4.2 and GO.db_3.4.2
```

geneset.hallmark.hsa geneset.hallmark.hsa genesets for Hallmark (MSigDB)

## **Description**

Hallmark (MSigDB) (hallmark) genesets. All genesets are required to have >= 10 Entrez IDs. Built on Mon Oct 16 18:46:15 2017.

## Usage

geneset.hallmark.hsa

## **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. GOBP.

dburl A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

#### Source

http://software.broadinstitute.org/gsea/msigdb/collections.jsp#H

geneset.immunologic.hsa

geneset.immunologic.hsa genesets for Immunologic Signatures (MSigDB)

## **Description**

Immunologic Signatures (MSigDB) (immunologic) genesets. All genesets are required to have >= 10 Entrez IDs. Built on Mon Oct 16 18:46:45 2017.

## Usage

geneset.immunologic.hsa

#### **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. GOBP.

dburl A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

## Source

http://software.broadinstitute.org/gsea/msigdb/collections.jsp#C7

```
geneset.kegg_pathway.hsa
```

geneset.kegg\_pathway.hsa genesets for KEGG Pathways

## **Description**

KEGG Pathways (kegg\_pathway) genesets. All genesets are required to have >= 10 Entrez IDs. Built on Mon Oct 16 18:46:53 2017.

## Usage

geneset.kegg\_pathway.hsa

#### **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. GOBP.

dburl A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

#### Source

http://kegg.jp

```
{\it geneset.kegg\_pathway.mmu} \\ {\it geneset.kegg\_pathway.mmu}
```

## **Description**

GeneSet object which stores information about sets of genes.

These objects are used internally by the chipenrich package.

## Usage

```
data(geneset.kegg_pathway.mmu)
```

## **Format**

See GeneSet-class for a description of the format.

#### See Also

For more information about genesets: chipenrich.data

# **Description**

GeneSet object which stores information about sets of genes.

These objects are used internally by the chipenrich package.

## Usage

```
data(geneset.kegg_pathway.rno)
```

#### **Format**

See GeneSet-class for a description of the format.

#### See Also

For more information about genesets: chipenrich.data

For information regarding how the genesets were created: browseVignettes("chipenrich.data")

geneset.mesh.hsa

geneset.mesh.hsa

# **Description**

GeneSet object which stores information about sets of genes.

These objects are used internally by the chipenrich package.

# Usage

```
data(geneset.mesh.hsa)
```

## **Format**

See GeneSet-class for a description of the format.

#### See Also

For more information about genesets: chipenrich.data

28 geneset.mesh.rno

geneset.mesh.mmu

geneset.mesh.mmu

## **Description**

GeneSet object which stores information about sets of genes.

These objects are used internally by the chipenrich package.

## Usage

```
data(geneset.mesh.mmu)
```

#### **Format**

See GeneSet-class for a description of the format.

#### See Also

For more information about genesets: chipenrich.data

For information regarding how the genesets were created: browseVignettes("chipenrich.data")

geneset.mesh.rno

geneset.mesh.rno

## **Description**

GeneSet object which stores information about sets of genes.

These objects are used internally by the chipenrich package.

## Usage

```
data(geneset.mesh.rno)
```

#### **Format**

See GeneSet-class for a description of the format.

## See Also

For more information about genesets: chipenrich.data

geneset.metabolite.hsa 29

# Description

GeneSet object which stores information about sets of genes.

These objects are used internally by the chipenrich package.

# Usage

```
data(geneset.metabolite.hsa)
```

#### **Format**

See GeneSet-class for a description of the format.

#### See Also

For more information about genesets: chipenrich.data

For information regarding how the genesets were created: browseVignettes("chipenrich.data")

# Description

GeneSet object which stores information about sets of genes.

These objects are used internally by the chipenrich package.

## Usage

```
data(geneset.metabolite.mmu)
```

# **Format**

See GeneSet-class for a description of the format.

## See Also

For more information about genesets: chipenrich.data

30 geneset.microrna.hsa

#### **Description**

GeneSet object which stores information about sets of genes.

These objects are used internally by the chipenrich package.

## Usage

```
data(geneset.metabolite.rno)
```

#### **Format**

See GeneSet-class for a description of the format.

#### See Also

For more information about genesets: chipenrich.data

For information regarding how the genesets were created: browseVignettes("chipenrich.data")

geneset.microrna.hsa genesets for MicroRNA Targets (MSigDB)

## **Description**

MicroRNA Targets (MSigDB) (microrna) genesets. All genesets are required to have >= 10 Entrez IDs. Built on Mon Oct 16 18:46:56 2017.

#### Usage

```
geneset.microrna.hsa
```

## **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. GOBP.

dburl A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

## **Source**

http://software.broad institute.org/gsea/msigdb/collections.jsp#C3

geneset.oncogenic.hsa 31

geneset.oncogenic.hsa geneset.oncogenic.hsa genesets for Oncogenic Signatures (MSigDB)

# Description

Oncogenic Signatures (MSigDB) (oncogenic) genesets. All genesets are required to have >= 10 Entrez IDs, Built on Mon Oct 16 18:47:23 2017.

## Usage

geneset.oncogenic.hsa

#### **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. GOBP.

dburl A character of the URL of the database underlying the genesets.

**organism** A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

## **Source**

http://software.broadinstitute.org/gsea/msigdb/collections.jsp#C6

## **Description**

GeneSet object which stores information about sets of genes.

These objects are used internally by the chipenrich package.

## Usage

```
data(geneset.panther_pathway.hsa)
```

## Format

See GeneSet-class for a description of the format.

#### See Also

For more information about genesets: chipenrich.data

```
geneset.panther\_pathway.mmu\\ geneset.panther\_pathway.mmu
```

# Description

GeneSet object which stores information about sets of genes.

These objects are used internally by the chipenrich package.

# Usage

```
data(geneset.panther_pathway.mmu)
```

#### **Format**

See GeneSet-class for a description of the format.

#### See Also

For more information about genesets: chipenrich.data

For information regarding how the genesets were created: browseVignettes("chipenrich.data")

# Description

GeneSet object which stores information about sets of genes.

These objects are used internally by the chipenrich package.

## Usage

```
data(geneset.panther_pathway.rno)
```

# **Format**

See GeneSet-class for a description of the format.

## See Also

For more information about genesets: chipenrich.data

geneset.pfam.hsa 33

geneset.pfam.hsa

geneset.pfam.hsa genesets for Pfam

#### **Description**

Pfam (pfam) genesets. All genesets are required to have >= 10 Entrez IDs. Built on Mon Oct 16 18:47:28 2017.

## Usage

geneset.pfam.hsa

#### **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. GOBP.

dburl A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

#### Source

http://pfam.xfam.org

geneset.pfam.mmu

geneset.pfam.mmu

# Description

GeneSet object which stores information about sets of genes.

These objects are used internally by the chipenrich package.

## Usage

```
data(geneset.pfam.mmu)
```

#### **Format**

See GeneSet-class for a description of the format.

# See Also

For more information about genesets: chipenrich.data

geneset.pfam.rno

geneset.pfam.rno

#### **Description**

GeneSet object which stores information about sets of genes.

These objects are used internally by the chipenrich package.

#### Usage

```
data(geneset.pfam.rno)
```

#### **Format**

See GeneSet-class for a description of the format.

#### See Also

For more information about genesets: chipenrich.data

For information regarding how the genesets were created: browseVignettes("chipenrich.data")

geneset.protein\_interaction\_biogrid.hsa

geneset.protein\_interaction\_biogrid.hsa genesets for BioGRID Protein Interactions

## **Description**

BioGRID Protein Interactions (protein\_interaction\_biogrid) genesets. All genesets are required to have >= 10 Entrez IDs. Built on Tue Oct 24 16:05:53 2017.

### Usage

```
geneset.protein_interaction_biogrid.hsa
```

#### **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. GOBP.

dburl A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

geneset.reactome.dme 35

#### **Source**

https://thebiogrid.org

geneset.reactome.dme genesets for Drosophila melanogaster

## **Description**

Reactome genesets for Drosophila melanogaster. All genesets are required to have >= 10 Entrez IDs. Built on Mon Mar 20 15:14:03 2017.

## Usage

geneset.reactome.dme

#### **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. Reactome.

dburl A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. R-HSA-109688), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

## Source

http://www.reactome.org/download/current/NCBI2Reactome\_All\_Levels.txt downloaded on 2017-03-19

geneset.reactome.dre genesets for Danio rerio

# Description

Reactome genesets for Danio rerio. All genesets are required to have >= 10 Entrez IDs. Built on Tue Mar 28 13:03:21 2017.

### Usage

geneset.reactome.dre

36 geneset.reactome.hsa

#### **Format**

A GeneSet object with the following slots:

**type** A character indicating the type of genesets, e.g. Reactome.

**dburl** A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. R-HSA-109688), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

#### Source

http://www.reactome.org/download/current/NCBI2Reactome\_All\_Levels.txt downloaded on 2017-03-19

geneset.reactome.hsa genesets for Homo sapiens

## **Description**

Reactome genesets for Homo sapiens. All genesets are required to have  $\geq$  10 Entrez IDs. Built on Mon Mar 20 15:13:45 2017.

## Usage

geneset.reactome.hsa

### **Format**

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. Reactome.

dburl A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. R-HSA-109688), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

#### **Source**

http://www.reactome.org/download/current/NCBI2Reactome\_All\_Levels.txt downloaded on 2017-03-19

geneset.reactome.mmu 37

geneset.reactome.mmu genesets for Mus musculus

# **Description**

Reactome genesets for Mus musculus. All genesets are required to have >= 10 Entrez IDs. Built on Mon Mar 20 15:13:55 2017.

### Usage

geneset.reactome.mmu

### **Format**

A GeneSet object with the following slots:

**type** A character indicating the type of genesets, e.g. Reactome.

dburl A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. R-HSA-109688), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

## Source

http://www.reactome.org/download/current/NCBI2Reactome\_All\_Levels.txt downloaded on 2017-03-19

geneset.reactome.rno genesets for Rattus norvegicus

### **Description**

Reactome genesets for Rattus norvegicus. All genesets are required to have >= 10 Entrez IDs. Built on Mon Mar 20 15:13:59 2017.

# Usage

geneset.reactome.rno

A GeneSet object with the following slots:

type A character indicating the type of genesets, e.g. Reactome.

**dburl** A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. R-HSA-109688), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

#### **Source**

http://www.reactome.org/download/current/NCBI2Reactome\_All\_Levels.txt downloaded on 2017-03-19

geneset.transcription\_factors.hsa

geneset.transcription\_factors.hsa genesets for Transcription Factor Targets (MSigDB)

### **Description**

Transcription Factor Targets (MSigDB) (transcription\_factors) genesets. All genesets are required to have >= 10 Entrez IDs. Built on Mon Oct 16 18:47:33 2017.

# Usage

geneset.transcription\_factors.hsa

### **Format**

A GeneSet object with the following slots:

**type** A character indicating the type of genesets, e.g. GOBP.

dburl A character of the URL of the database underlying the genesets.

organism A character of the organism, e.g. Homo sapiens.

**set.gene** An environment containing a list whose keys are database specific accessions (e.g. GO IDs for GO terms), and whose elements are character vectors of Entrez Gene IDs.

**all.genes** A character vector of all the Entrez Gene IDs contained over all the genesets in this type.

**set.name** An environment containing a list whose keys are database specific accessions, and whose elements are human readable geneset names.

# **Source**

http://software.broadinstitute.org/gsea/msigdb/collections.jsp#C3

```
{\it geneset.transcription\_factors.mmu} \\ {\it geneset.transcription\_factors.mmu}
```

# Description

GeneSet object which stores information about sets of genes.

These objects are used internally by the chipenrich package.

# Usage

```
data(geneset.transcription_factors.mmu)
```

### **Format**

See GeneSet-class for a description of the format.

#### See Also

For more information about genesets: chipenrich.data

For information regarding how the genesets were created: browseVignettes("chipenrich.data")

```
geneset.transcription\_factors.rno \\ geneset.transcription\_factors.rno
```

# Description

GeneSet object which stores information about sets of genes.

These objects are used internally by the chipenrich package.

# Usage

```
data(geneset.transcription_factors.rno)
```

# **Format**

See GeneSet-class for a description of the format.

# See Also

For more information about genesets: chipenrich.data

For information regarding how the genesets were created: browseVignettes("chipenrich.data")

locusdef.danRer10.10kb

locusdef.danRer10.10kb locus definition

# **Description**

A LocusDefinition where a gene locus is defined within 10kb upstream and downstream of the TSS.

# Usage

locusdef.danRer10.10kb

#### **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, danRer10.

organism A character indicating the organism name. In this case, Danio rerio.

## **Details**

Built on Fri Apr 13 09:54:27 2018.

### Source

R packages: TxDb.Drerio.UCSC.danRer10.refGene\_3.4.2 and org.Dr.eg.db\_3.5.0.

locusdef.danRer10.10kb\_outside

locusdef.danRer10.10kb\_outside locus definition

# Description

A LocusDefinition where a gene locus is defined as the region beyond 10kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

# Usage

locusdef.danRer10.10kb\_outside

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, danRer10.

organism A character indicating the organism name. In this case, Danio rerio.

#### **Details**

Built on Fri Apr 13 09:54:27 2018.

#### **Source**

R packages: TxDb.Drerio.UCSC.danRer10.refGene\_3.4.2 and org.Dr.eg.db\_3.5.0.

locusdef.danRer10.10kb\_outside\_upstream

 $locus def. dan Rer 10.10 kb\_out side\_up stream\ locus\ definition$ 

# **Description**

A LocusDefinition where a gene locus is defined as the region beyond 10kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

# Usage

locusdef.danRer10.10kb\_outside\_upstream

### **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

genome.build A character indicating the genome build. In this case, danRer10.

organism A character indicating the organism name. In this case, Danio rerio.

## **Details**

Built on Fri Apr 13 09:54:27 2018.

#### **Source**

R packages: TxDb.Drerio.UCSC.danRer10.refGene\_3.4.2 and org.Dr.eg.db\_3.5.0.

locusdef.danRer10.1kb locusdef.danRer10.1kb locus definition

# **Description**

A LocusDefinition where a gene locus is defined within 1kb upstream and downstream of the TSS.

# Usage

locusdef.danRer10.1kb

# **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

genome.build A character indicating the genome build. In this case, danRer10.

organism A character indicating the organism name. In this case, Danio rerio.

# **Details**

Built on Fri Apr 13 09:54:25 2018.

# Source

R packages: TxDb.Drerio.UCSC.danRer10.refGene\_3.4.2 and org.Dr.eg.db\_3.5.0.

locusdef.danRer10.1kb\_outside

locusdef.danRer10.1kb\_outside locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region beyond 1kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

# Usage

locusdef.danRer10.1kb\_outside

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

genome.build A character indicating the genome build. In this case, danRer10.

organism A character indicating the organism name. In this case, Danio rerio.

#### **Details**

Built on Fri Apr 13 09:54:26 2018.

#### **Source**

R packages: TxDb.Drerio.UCSC.danRer10.refGene\_3.4.2 and org.Dr.eg.db\_3.5.0.

locusdef.danRer10.1kb\_outside\_upstream

locusdef.danRer10.1kb\_outside\_upstream locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region beyond 1kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

# Usage

locusdef.danRer10.1kb\_outside\_upstream

# Format

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

genome.build A character indicating the genome build. In this case, danRer10.

organism A character indicating the organism name. In this case, Danio rerio.

## **Details**

Built on Fri Apr 13 09:54:25 2018.

#### **Source**

R packages: TxDb.Drerio.UCSC.danRer10.refGene\_3.4.2 and org.Dr.eg.db\_3.5.0.

locusdef.danRer10.5kb locus definition

# **Description**

A LocusDefinition where a gene locus is defined within 5kb upstream and downstream of the TSS.

# Usage

locusdef.danRer10.5kb

# **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

genome.build A character indicating the genome build. In this case, danRer10.

organism A character indicating the organism name. In this case, Danio rerio.

# **Details**

Built on Fri Apr 13 09:54:26 2018.

# Source

R packages: TxDb.Drerio.UCSC.danRer10.refGene\_3.4.2 and org.Dr.eg.db\_3.5.0.

locusdef.danRer10.5kb\_outside

locusdef.danRer10.5kb\_outside locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region beyond 5kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

# Usage

locusdef.danRer10.5kb\_outside

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

genome.build A character indicating the genome build. In this case, danRer10.

organism A character indicating the organism name. In this case, Danio rerio.

#### **Details**

Built on Fri Apr 13 09:54:27 2018.

#### **Source**

R packages: TxDb.Drerio.UCSC.danRer10.refGene\_3.4.2 and org.Dr.eg.db\_3.5.0.

locusdef.danRer10.5kb\_outside\_upstream

locusdef.danRer10.5kb\_outside\_upstream locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region beyond 5kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

# Usage

locusdef.danRer10.5kb\_outside\_upstream

# Format

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

genome.build A character indicating the genome build. In this case, danRer10.

organism A character indicating the organism name. In this case, Danio rerio.

## **Details**

Built on Fri Apr 13 09:54:26 2018.

#### **Source**

R packages: TxDb.Drerio.UCSC.danRer10.refGene\_3.4.2 and org.Dr.eg.db\_3.5.0.

46 locusdef.danRer10.intron

locusdef.danRer10.exon

locusdef.danRer10.exon locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the exons belonging to genes.

### Usage

locusdef.danRer10.exon

## **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, danRer10.

organism A character indicating the organism name. In this case, Danio rerio.

# **Details**

Built on Fri Apr 13 09:54:24 2018.

### **Source**

R packages: TxDb.Drerio.UCSC.danRer10.refGene\_3.4.2 and org.Dr.eg.db\_3.5.0.

locusdef.danRer10.intron

locusdef.danRer10.intron locus definition

# Description

A LocusDefinition where a gene locus is defined as the introns belonging to genes.

# Usage

locusdef.danRer10.intron

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, danRer10.

organism A character indicating the organism name. In this case, Danio rerio.

#### **Details**

Built on Fri Apr 13 09:54:25 2018.

#### **Source**

R packages: TxDb.Drerio.UCSC.danRer10.refGene\_3.4.2 and org.Dr.eg.db\_3.5.0.

locusdef.danRer10.nearest\_gene

locusdef.danRer10.nearest\_gene locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region spanning the midpoints between adjacent TSSs and TESs.

# Usage

locusdef.danRer10.nearest\_gene

# Format

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

genome.build A character indicating the genome build. In this case, danRer10.

organism A character indicating the organism name. In this case, Danio rerio.

## **Details**

Built on Fri Apr 13 09:54:23 2018.

#### **Source**

R packages: TxDb.Drerio.UCSC.danRer10.refGene\_3.4.2 and org.Dr.eg.db\_3.5.0.

48 locusdef.dm3.10kb

locusdef.danRer10.nearest\_tss

locusdef.danRer10.nearest\_tss locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region spanning the midpoints between adjacent TSSs.

# Usage

locusdef.danRer10.nearest\_tss

### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

**genome.build** A character indicating the genome build. In this case, danRer10.

organism A character indicating the organism name. In this case, Danio rerio.

# **Details**

Built on Fri Apr 13 09:54:22 2018.

# Source

R packages: TxDb.Drerio.UCSC.danRer10.refGene\_3.4.2 and org.Dr.eg.db\_3.5.0.

locusdef.dm3.10kb

locusdef.dm3.10kb locus definition

# **Description**

A LocusDefinition where a gene locus is defined within 10kb upstream and downstream of the TSS.

# Usage

locusdef.dm3.10kb

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, dm3.

organism A character indicating the organism name. In this case, Drosophila melanogaster.

#### **Details**

For the dm3 genome, original gene IDs are from ENSEMBL and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:53:05 2018.

#### Source

R packages: TxDb.Dmelanogaster.UCSC.dm3.ensGene\_3.2.2 and org.Dm.eg.db\_3.5.0.

locusdef.dm3.10kb\_outside

locusdef.dm3.10kb\_outside locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region beyond 10kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

## Usage

locusdef.dm3.10kb\_outside

### Format

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, dm3.

organism A character indicating the organism name. In this case, Drosophila melanogaster.

## **Details**

For the dm3 genome, original gene IDs are from ENSEMBL and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:53:06 2018.

#### Source

 $R\ packages:\ TxDb.Dmelanogaster.UCSC.dm3.ensGene\_3.2.2\ and\ org.Dm.eg.db\_3.5.0.$ 

locusdef.dm3.10kb\_outside\_upstream

locusdef.dm3.10kb\_outside\_upstream locus definition

# Description

A LocusDefinition where a gene locus is defined as the region beyond 10kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

# Usage

locusdef.dm3.10kb\_outside\_upstream

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

**genome.build** A character indicating the genome build. In this case, dm3.

organism A character indicating the organism name. In this case, Drosophila melanogaster.

# **Details**

For the dm3 genome, original gene IDs are from ENSEMBL and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:53:05 2018.

# Source

R packages: TxDb.Dmelanogaster.UCSC.dm3.ensGene\_3.2.2 and org.Dm.eg.db\_3.5.0.

locusdef.dm3.1kb 51

locusdef.dm3.1kb

locusdef.dm3.1kb locus definition

## **Description**

A LocusDefinition where a gene locus is defined within 1kb upstream and downstream of the TSS.

# Usage

locusdef.dm3.1kb

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

genome.build A character indicating the genome build. In this case, dm3.

organism A character indicating the organism name. In this case, Drosophila melanogaster.

## **Details**

For the dm3 genome, original gene IDs are from ENSEMBL and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:53:05 2018.

#### **Source**

R packages: TxDb.Dmelanogaster.UCSC.dm3.ensGene\_3.2.2 and org.Dm.eg.db\_3.5.0.

locusdef.dm3.1kb\_outside

locusdef.dm3.1kb\_outside locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region beyond 1kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

# Usage

locusdef.dm3.1kb\_outside

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, dm3.

organism A character indicating the organism name. In this case, Drosophila melanogaster.

#### **Details**

For the dm3 genome, original gene IDs are from ENSEMBL and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:53:05 2018.

#### **Source**

R packages: TxDb.Dmelanogaster.UCSC.dm3.ensGene\_3.2.2 and org.Dm.eg.db\_3.5.0.

locusdef.dm3.1kb\_outside\_upstream

locusdef.dm3.1kb\_outside\_upstream locus definition

## **Description**

A LocusDefinition where a gene locus is defined as the region beyond 1kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

## Usage

 $locus def.dm3.1kb\_outside\_upstream$ 

# **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, dm3.

organism A character indicating the organism name. In this case, Drosophila melanogaster.

## **Details**

For the dm3 genome, original gene IDs are from ENSEMBL and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:53:05 2018.

locusdef.dm3.5kb 53

#### Source

R packages: TxDb.Dmelanogaster.UCSC.dm3.ensGene\_3.2.2 and org.Dm.eg.db\_3.5.0.

locusdef.dm3.5kb

locusdef.dm3.5kb locus definition

## **Description**

A LocusDefinition where a gene locus is defined within 5kb upstream and downstream of the TSS.

# Usage

locusdef.dm3.5kb

### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

**genome.build** A character indicating the genome build. In this case, dm3.

organism A character indicating the organism name. In this case, Drosophila melanogaster.

### **Details**

For the dm3 genome, original gene IDs are from ENSEMBL and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:53:05 2018.

### **Source**

R packages: TxDb.Dmelanogaster.UCSC.dm3.ensGene\_3.2.2 and org.Dm.eg.db\_3.5.0.

locusdef.dm3.5kb\_outside

locusdef.dm3.5kb\_outside locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region beyond 5kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

### Usage

locusdef.dm3.5kb\_outside

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, dm3.

organism A character indicating the organism name. In this case, Drosophila melanogaster.

#### **Details**

For the dm3 genome, original gene IDs are from ENSEMBL and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:53:05 2018.

#### **Source**

R packages: TxDb.Dmelanogaster.UCSC.dm3.ensGene\_3.2.2 and org.Dm.eg.db\_3.5.0.

locusdef.dm3.5kb\_outside\_upstream

locusdef.dm3.5kb\_outside\_upstream locus definition

## **Description**

A LocusDefinition where a gene locus is defined as the region beyond 5kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

## Usage

 $locus def.dm3.5kb\_outside\_upstream$ 

# **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, dm3.

organism A character indicating the organism name. In this case, Drosophila melanogaster.

## **Details**

For the dm3 genome, original gene IDs are from ENSEMBL and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:53:05 2018.

locusdef.dm3.exon 55

#### **Source**

R packages: TxDb.Dmelanogaster.UCSC.dm3.ensGene\_3.2.2 and org.Dm.eg.db\_3.5.0.

locusdef.dm3.exon

locusdef.dm3.exon locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the exons belonging to genes.

# Usage

locusdef.dm3.exon

#### **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, dm3.

organism A character indicating the organism name. In this case, Drosophila melanogaster.

## **Details**

For the dm3 genome, original gene IDs are from ENSEMBL and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:53:04 2018.

# **Source**

R packages: TxDb.Dmelanogaster.UCSC.dm3.ensGene\_3.2.2 and org.Dm.eg.db\_3.5.0.

locusdef.dm3.intron

locusdef.dm3.intron locus definition

# Description

A LocusDefinition where a gene locus is defined as the introns belonging to genes.

# Usage

locusdef.dm3.intron

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, dm3.

organism A character indicating the organism name. In this case, Drosophila melanogaster.

### **Details**

For the dm3 genome, original gene IDs are from ENSEMBL and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:53:04 2018.

#### **Source**

R packages: TxDb.Dmelanogaster.UCSC.dm3.ensGene\_3.2.2 and org.Dm.eg.db\_3.5.0.

locusdef.dm3.nearest\_gene

locusdef.dm3.nearest\_gene locus definition

## **Description**

A LocusDefinition where a gene locus is defined as the region spanning the midpoints between adjacent TSSs and TESs.

## Usage

locusdef.dm3.nearest\_gene

# **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, dm3.

organism A character indicating the organism name. In this case, Drosophila melanogaster.

## **Details**

For the dm3 genome, original gene IDs are from ENSEMBL and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:53:03 2018.

### Source

 $R\ packages:\ TxDb.Dmelanogaster.UCSC.dm3.ensGene\_3.2.2\ and\ org.Dm.eg.db\_3.5.0.$ 

locusdef.dm3.nearest\_tss

locusdef.dm3.nearest\_tss locus definition

# Description

A LocusDefinition where a gene locus is defined as the region spanning the midpoints between adjacent TSSs.

# Usage

locusdef.dm3.nearest\_tss

### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

genome.build A character indicating the genome build. In this case, dm3.

organism A character indicating the organism name. In this case, Drosophila melanogaster.

# **Details**

For the dm3 genome, original gene IDs are from ENSEMBL and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:53:03 2018.

# Source

R packages: TxDb.Dmelanogaster.UCSC.dm3.ensGene\_3.2.2 and org.Dm.eg.db\_3.5.0.

locusdef.dm6.10kb

locusdef.dm6.10kb locus definition

# **Description**

A LocusDefinition where a gene locus is defined within 10kb upstream and downstream of the TSS.

# Usage

locusdef.dm6.10kb

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

genome.build A character indicating the genome build. In this case, dm6.

organism A character indicating the organism name. In this case, Drosophila melanogaster.

## **Details**

For the dm6 genome, original gene IDs are from FLYBASE and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:53:35 2018.

#### **Source**

R packages: TxDb.Dmelanogaster.UCSC.dm6.ensGene\_3.4.1 and org.Dm.eg.db\_3.5.0.

 $locusdef.dm6.10kb\_outside$ 

locusdef.dm6.10kb\_outside locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region beyond 10kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

# Usage

locusdef.dm6.10kb\_outside

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, dm6.

organism A character indicating the organism name. In this case, Drosophila melanogaster.

#### **Details**

For the dm6 genome, original gene IDs are from FLYBASE and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:53:35 2018.

#### **Source**

R packages: TxDb.Dmelanogaster.UCSC.dm6.ensGene\_3.4.1 and org.Dm.eg.db\_3.5.0.

locusdef.dm6.10kb\_outside\_upstream

locusdef.dm6.10kb\_outside\_upstream locus definition

## **Description**

A LocusDefinition where a gene locus is defined as the region beyond 10kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

## Usage

 $locusdef.dm6.10kb\_outside\_upstream$ 

# **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, dm6.

organism A character indicating the organism name. In this case, Drosophila melanogaster.

## **Details**

For the dm6 genome, original gene IDs are from FLYBASE and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:53:35 2018.

#### Source

R packages: TxDb.Dmelanogaster.UCSC.dm6.ensGene\_3.4.1 and org.Dm.eg.db\_3.5.0.

locusdef.dm6.1kb

locusdef.dm6.1kb locus definition

## **Description**

A LocusDefinition where a gene locus is defined within 1kb upstream and downstream of the TSS.

# Usage

locusdef.dm6.1kb

### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

**genome.build** A character indicating the genome build. In this case, dm6.

organism A character indicating the organism name. In this case, Drosophila melanogaster.

### **Details**

For the dm6 genome, original gene IDs are from FLYBASE and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:53:34 2018.

### **Source**

R packages: TxDb.Dmelanogaster.UCSC.dm6.ensGene\_3.4.1 and org.Dm.eg.db\_3.5.0.

locusdef.dm6.1kb\_outside

locusdef.dm6.1kb\_outside locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region beyond 1kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

### Usage

locusdef.dm6.1kb\_outside

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, dm6.

organism A character indicating the organism name. In this case, Drosophila melanogaster.

#### **Details**

For the dm6 genome, original gene IDs are from FLYBASE and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:53:35 2018.

#### **Source**

R packages: TxDb.Dmelanogaster.UCSC.dm6.ensGene\_3.4.1 and org.Dm.eg.db\_3.5.0.

locusdef.dm6.1kb\_outside\_upstream

locusdef.dm6.1kb\_outside\_upstream locus definition

## **Description**

A LocusDefinition where a gene locus is defined as the region beyond 1kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

## Usage

 $locus def.dm6.1kb\_outside\_upstream$ 

# **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, dm6.

organism A character indicating the organism name. In this case, Drosophila melanogaster.

## **Details**

For the dm6 genome, original gene IDs are from FLYBASE and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:53:34 2018.

#### Source

R packages: TxDb.Dmelanogaster.UCSC.dm6.ensGene\_3.4.1 and org.Dm.eg.db\_3.5.0.

locusdef.dm6.5kb

locusdef.dm6.5kb locus definition

## **Description**

A LocusDefinition where a gene locus is defined within 5kb upstream and downstream of the TSS.

# Usage

locusdef.dm6.5kb

### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

**genome.build** A character indicating the genome build. In this case, dm6.

organism A character indicating the organism name. In this case, Drosophila melanogaster.

### **Details**

For the dm6 genome, original gene IDs are from FLYBASE and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:53:35 2018.

### **Source**

R packages: TxDb.Dmelanogaster.UCSC.dm6.ensGene\_3.4.1 and org.Dm.eg.db\_3.5.0.

locusdef.dm6.5kb\_outside

locusdef.dm6.5kb\_outside locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region beyond 5kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

### Usage

locusdef.dm6.5kb\_outside

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, dm6.

organism A character indicating the organism name. In this case, Drosophila melanogaster.

#### **Details**

For the dm6 genome, original gene IDs are from FLYBASE and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:53:35 2018.

#### **Source**

R packages: TxDb.Dmelanogaster.UCSC.dm6.ensGene\_3.4.1 and org.Dm.eg.db\_3.5.0.

locusdef.dm6.5kb\_outside\_upstream

locusdef.dm6.5kb\_outside\_upstream locus definition

## **Description**

A LocusDefinition where a gene locus is defined as the region beyond 5kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

## Usage

locusdef.dm6.5kb\_outside\_upstream

# **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, dm6.

**organism** A character indicating the organism name. In this case, Drosophila melanogaster.

## **Details**

For the dm6 genome, original gene IDs are from FLYBASE and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:53:35 2018.

64 locusdef.dm6.intron

#### **Source**

R packages: TxDb.Dmelanogaster.UCSC.dm6.ensGene\_3.4.1 and org.Dm.eg.db\_3.5.0.

locusdef.dm6.exon

locusdef.dm6.exon locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the exons belonging to genes.

# Usage

locusdef.dm6.exon

#### **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, dm6.

organism A character indicating the organism name. In this case, Drosophila melanogaster.

## **Details**

For the dm6 genome, original gene IDs are from FLYBASE and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:53:33 2018.

# **Source**

R packages: TxDb.Dmelanogaster.UCSC.dm6.ensGene\_3.4.1 and org.Dm.eg.db\_3.5.0.

locusdef.dm6.intron

locusdef.dm6.intron locus definition

# Description

A LocusDefinition where a gene locus is defined as the introns belonging to genes.

# Usage

locusdef.dm6.intron

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, dm6.

organism A character indicating the organism name. In this case, Drosophila melanogaster.

## **Details**

For the dm6 genome, original gene IDs are from FLYBASE and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:53:34 2018.

#### **Source**

R packages: TxDb.Dmelanogaster.UCSC.dm6.ensGene\_3.4.1 and org.Dm.eg.db\_3.5.0.

locusdef.dm6.nearest\_gene

locusdef.dm6.nearest\_gene locus definition

## **Description**

A LocusDefinition where a gene locus is defined as the region spanning the midpoints between adjacent TSSs and TESs.

## Usage

locusdef.dm6.nearest\_gene

# **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, dm6.

organism A character indicating the organism name. In this case, Drosophila melanogaster.

## **Details**

For the dm6 genome, original gene IDs are from FLYBASE and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:53:33 2018.

#### **Source**

 $R\ packages:\ TxDb.Dmelanogaster.UCSC.dm6.ensGene\_3.4.1\ and\ org.Dm.eg.db\_3.5.0.$ 

locusdef.dm6.nearest\_tss

locusdef.dm6.nearest\_tss locus definition

# Description

A LocusDefinition where a gene locus is defined as the region spanning the midpoints between adjacent TSSs.

# Usage

locusdef.dm6.nearest\_tss

### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

genome.build A character indicating the genome build. In this case, dm6.

 $\begin{tabular}{ll} \textbf{organism} & A & character & indicating the organism name. In this case, Drosophila & melanogaster. \end{tabular}$ 

# **Details**

For the dm6 genome, original gene IDs are from FLYBASE and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:53:33 2018.

# Source

R packages: TxDb.Dmelanogaster.UCSC.dm6.ensGene\_3.4.1 and org.Dm.eg.db\_3.5.0.

locusdef.hg19.10kb 67

locusdef.hg19.10kb

locusdef.hg19.10kb locus definition

# **Description**

A LocusDefinition where a gene locus is defined within 10kb upstream and downstream of the TSS.

### Usage

locusdef.hg19.10kb

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, hg19.

organism A character indicating the organism name. In this case, Homo sapiens.

## **Details**

Built on Fri Apr 13 09:45:58 2018.

### Source

R packages: TxDb.Hsapiens.UCSC.hg19.knownGene\_3.2.2 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.annota and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.metadata.Ent

locusdef.hg19.10kb\_outside

locusdef.hg19.10kb\_outside locus definition

# Description

A LocusDefinition where a gene locus is defined as the region beyond 10kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

# Usage

locusdef.hg19.10kb\_outside

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, hg19.

organism A character indicating the organism name. In this case, Homo sapiens.

#### **Details**

Built on Fri Apr 13 09:45:59 2018.

#### **Source**

R packages: TxDb.Hsapiens.UCSC.hg19.knownGene\_3.2.2 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.annota and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.metadata.Ent

# **Description**

A LocusDefinition where a gene locus is defined as the region beyond 10kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

## Usage

locusdef.hg19.10kb\_outside\_upstream

# **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, hg19.

organism A character indicating the organism name. In this case, Homo sapiens.

# **Details**

Built on Fri Apr 13 09:45:58 2018.

locusdef.hg19.1kb 69

#### **Source**

R packages: TxDb.Hsapiens.UCSC.hg19.knownGene\_3.2.2 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.annota and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.metadata.Ent

locusdef.hg19.1kb

locusdef.hg19.1kb locus definition

### **Description**

A LocusDefinition where a gene locus is defined within 1kb upstream and downstream of the TSS

# Usage

locusdef.hg19.1kb

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, hg19.

**organism** A character indicating the organism name. In this case, Homo sapiens.

## **Details**

Built on Fri Apr 13 09:45:55 2018.

# Source

R packages: TxDb.Hsapiens.UCSC.hg19.knownGene\_3.2.2 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.annota and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.metadata.Ent

locusdef.hg19.1kb\_outside

locusdef.hg19.1kb\_outside locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region beyond 1kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

### Usage

locusdef.hg19.1kb\_outside

#### **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, hg19.

organism A character indicating the organism name. In this case, Homo sapiens.

## **Details**

Built on Fri Apr 13 09:45:56 2018.

## **Source**

R packages: TxDb.Hsapiens.UCSC.hg19.knownGene\_3.2.2 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.annota and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.metadata.Ent

locusdef.hg19.1kb\_outside\_upstream

locusdef.hg19.1kb\_outside\_upstream locus definition

### **Description**

A LocusDefinition where a gene locus is defined as the region beyond 1kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

### Usage

 $locus def.hg 19.1kb\_outside\_upstream$ 

locusdef.hg19.5kb 71

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

**genome.build** A character indicating the genome build. In this case, hg19.

**organism** A character indicating the organism name. In this case, Homo sapiens.

### **Details**

Built on Fri Apr 13 09:45:56 2018.

#### Source

R packages: TxDb.Hsapiens.UCSC.hg19.knownGene\_3.2.2 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.annota and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.metadata.Ent

locusdef.hg19.5kb

locusdef.hg19.5kb locus definition

## **Description**

A LocusDefinition where a gene locus is defined within 5kb upstream and downstream of the TSS.

# Usage

locusdef.hg19.5kb

## **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, hg19.

organism A character indicating the organism name. In this case, Homo sapiens.

### **Details**

Built on Fri Apr 13 09:45:57 2018.

#### **Source**

R packages: TxDb.Hsapiens.UCSC.hg19.knownGene\_3.2.2 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.annota and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.metadata.Ent

locusdef.hg19.5kb\_outside

locusdef.hg19.5kb\_outside locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region beyond 5kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

### Usage

locusdef.hg19.5kb\_outside

#### **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, hg19.

organism A character indicating the organism name. In this case, Homo sapiens.

## **Details**

Built on Fri Apr 13 09:45:58 2018.

## **Source**

R packages: TxDb.Hsapiens.UCSC.hg19.knownGene\_3.2.2 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.annota and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.metadata.Ent

locusdef.hg19.5kb\_outside\_upstream

locusdef.hg19.5kb\_outside\_upstream locus definition

### **Description**

A LocusDefinition where a gene locus is defined as the region beyond 5kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

### Usage

locusdef.hg19.5kb\_outside\_upstream

locusdef.hg19.exon 73

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, hg19.

organism A character indicating the organism name. In this case, Homo sapiens.

### **Details**

Built on Fri Apr 13 09:45:57 2018.

#### Source

R packages: TxDb.Hsapiens.UCSC.hg19.knownGene\_3.2.2 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.annota and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.metadata.Ent

locusdef.hg19.exon

locusdef.hg19.exon locus definition

#### Description

A LocusDefinition where a gene locus is defined as the exons belonging to genes.

### Usage

locusdef.hg19.exon

# Format

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, hg19.

organism A character indicating the organism name. In this case, Homo sapiens.

### **Details**

Built on Fri Apr 13 09:45:53 2018.

# Source

R packages: TxDb.Hsapiens.UCSC.hg19.knownGene\_3.2.2 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.annota and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.metadata.Ent

locusdef.hg19.intron locusdef.hg19.intron locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the introns belonging to genes.

# Usage

locusdef.hg19.intron

### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, hg19.

organism A character indicating the organism name. In this case, Homo sapiens.

# **Details**

Built on Fri Apr 13 09:45:55 2018.

### **Source**

R packages: TxDb.Hsapiens.UCSC.hg19.knownGene\_3.2.2 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.annota and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.metadata.Ent

locusdef.hg19.nearest\_gene

locusdef.hg19.nearest\_gene locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region spanning the midpoints between adjacent TSSs and TESs.

# Usage

locusdef.hg19.nearest\_gene

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, hg19.

organism A character indicating the organism name. In this case, Homo sapiens.

#### **Details**

Built on Fri Apr 13 09:45:51 2018.

#### **Source**

R packages: TxDb.Hsapiens.UCSC.hg19.knownGene\_3.2.2 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.annota and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.metadata.Ent

locusdef.hg19.nearest\_tss

locusdef.hg19.nearest\_tss locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region spanning the midpoints between adjacent TSSs.

# Usage

locusdef.hg19.nearest\_tss

# Format

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, hg19.

organism A character indicating the organism name. In this case, Homo sapiens.

# **Details**

Built on Fri Apr 13 09:45:51 2018.

76 locusdef.hg38.10kb

#### Source

R packages: TxDb.Hsapiens.UCSC.hg19.knownGene\_3.2.2 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.annota and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.metadata.Ent

locusdef.hg38.10kb

locusdef.hg38.10kb locus definition

### **Description**

A LocusDefinition where a gene locus is defined within 10kb upstream and downstream of the TSS

# Usage

locusdef.hg38.10kb

### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, hg38.

**organism** A character indicating the organism name. In this case, Homo sapiens.

# **Details**

Built on Fri Apr 13 09:49:42 2018.

# Source

R packages: TxDb.Hsapiens.UCSC.hg38.knownGene\_3.4.0 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.metadata.EntrezGene.gz

locusdef.hg38.10kb\_outside

locusdef.hg38.10kb\_outside locus definition

# Description

A LocusDefinition where a gene locus is defined as the region beyond 10kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

### Usage

locusdef.hg38.10kb\_outside

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, hg38.

organism A character indicating the organism name. In this case, Homo sapiens.

# **Details**

Built on Fri Apr 13 09:49:43 2018.

# **Source**

R packages: TxDb.Hsapiens.UCSC.hg38.knownGene\_3.4.0 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.metadata.EntrezGene.gz

locusdef.hg38.10kb\_outside\_upstream

locusdef.hg38.10kb\_outside\_upstream locus definition

### **Description**

A LocusDefinition where a gene locus is defined as the region beyond 10kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

# Usage

locusdef.hg38.10kb\_outside\_upstream

78 locusdef.hg38.1kb

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, hg38.

organism A character indicating the organism name. In this case, Homo sapiens.

### **Details**

Built on Fri Apr 13 09:49:43 2018.

#### Source

R packages: TxDb.Hsapiens.UCSC.hg38.knownGene\_3.4.0 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.metadata.EntrezGene.gz

locusdef.hg38.1kb

locusdef.hg38.1kb locus definition

### **Description**

A LocusDefinition where a gene locus is defined within 1kb upstream and downstream of the TSS.

# Usage

locusdef.hg38.1kb

# **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, hg38.

organism A character indicating the organism name. In this case, Homo sapiens.

### **Details**

Built on Fri Apr 13 09:49:39 2018.

### **Source**

R packages: TxDb.Hsapiens.UCSC.hg38.knownGene\_3.4.0 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.metadata.EntrezGene.gz

locusdef.hg38.1kb\_outside

locusdef.hg38.1kb\_outside locus definition

# Description

A LocusDefinition where a gene locus is defined as the region beyond 1kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

### Usage

locusdef.hg38.1kb\_outside

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, hg38.

organism A character indicating the organism name. In this case, Homo sapiens.

# **Details**

Built on Fri Apr 13 09:49:40 2018.

# **Source**

R packages: TxDb.Hsapiens.UCSC.hg38.knownGene\_3.4.0 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.metadata.EntrezGene.gz

locusdef.hg38.1kb\_outside\_upstream

locusdef.hg38.1kb\_outside\_upstream locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region beyond 1kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

# Usage

locusdef.hg38.1kb\_outside\_upstream

80 locusdef.hg38.5kb

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, hg38.

**organism** A character indicating the organism name. In this case, Homo sapiens.

### **Details**

Built on Fri Apr 13 09:49:39 2018.

#### Source

R packages: TxDb.Hsapiens.UCSC.hg38.knownGene\_3.4.0 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.metadata.EntrezGene.gz

locusdef.hg38.5kb

locusdef.hg38.5kb locus definition

### **Description**

A LocusDefinition where a gene locus is defined within 5kb upstream and downstream of the TSS.

# Usage

locusdef.hg38.5kb

# **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, hg38.

organism A character indicating the organism name. In this case, Homo sapiens.

### **Details**

Built on Fri Apr 13 09:49:41 2018.

### **Source**

R packages: TxDb.Hsapiens.UCSC.hg38.knownGene\_3.4.0 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.metadata.EntrezGene.gz

locusdef.hg38.5kb\_outside

locusdef.hg38.5kb\_outside locus definition

# Description

A LocusDefinition where a gene locus is defined as the region beyond 5kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

### Usage

locusdef.hg38.5kb\_outside

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, hg38.

organism A character indicating the organism name. In this case, Homo sapiens.

# **Details**

Built on Fri Apr 13 09:49:42 2018.

# Source

R packages: TxDb.Hsapiens.UCSC.hg38.knownGene\_3.4.0 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.metadata.EntrezGene.gz

locusdef.hg38.5kb\_outside\_upstream

locusdef.hg38.5kb\_outside\_upstream locus definition

### **Description**

A LocusDefinition where a gene locus is defined as the region beyond 5kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

# Usage

locusdef.hg38.5kb\_outside\_upstream

82 locusdef.hg38.exon

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, hg38.

organism A character indicating the organism name. In this case, Homo sapiens.

### **Details**

Built on Fri Apr 13 09:49:41 2018.

#### **Source**

R packages: TxDb.Hsapiens.UCSC.hg38.knownGene\_3.4.0 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.metadata.EntrezGene.gz

locusdef.hg38.exon

locusdef.hg38.exon locus definition

#### Description

A LocusDefinition where a gene locus is defined as the exons belonging to genes.

### Usage

locusdef.hg38.exon

# **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, hg38.

organism A character indicating the organism name. In this case, Homo sapiens.

### **Details**

Built on Fri Apr 13 09:49:37 2018.

# Source

R packages: TxDb.Hsapiens.UCSC.hg38.knownGene\_3.4.0 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.metadata.EntrezGene.gz

locusdef.hg38.intron 83

locusdef.hg38.intron locusdef.hg38.intron locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the introns belonging to genes.

# Usage

locusdef.hg38.intron

### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

genome.build A character indicating the genome build. In this case, hg38.

organism A character indicating the organism name. In this case, Homo sapiens.

# **Details**

Built on Fri Apr 13 09:49:38 2018.

### **Source**

R packages: TxDb.Hsapiens.UCSC.hg38.knownGene\_3.4.0 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.metadata.EntrezGene.gz

locusdef.hg38.nearest\_gene

locusdef.hg38.nearest\_gene locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region spanning the midpoints between adjacent TSSs and TESs.

# Usage

locusdef.hg38.nearest\_gene

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, hg38.

organism A character indicating the organism name. In this case, Homo sapiens.

#### **Details**

Built on Fri Apr 13 09:49:34 2018.

#### **Source**

R packages: TxDb.Hsapiens.UCSC.hg38.knownGene\_3.4.0 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.metadata.EntrezGene.gz

locusdef.hg38.nearest\_tss

locusdef.hg38.nearest\_tss locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region spanning the midpoints between adjacent TSSs.

### Usage

locusdef.hg38.nearest\_tss

# Format

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, hg38.

**organism** A character indicating the organism name. In this case, Homo sapiens.

# **Details**

Built on Fri Apr 13 09:49:34 2018.

locusdef.mm10.10kb 85

#### Source

R packages: TxDb.Hsapiens.UCSC.hg38.knownGene\_3.4.0 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.metadata.EntrezGene.gz

locusdef.mm10.10kb

locusdef.mm10.10kb locus definition

# **Description**

A LocusDefinition where a gene locus is defined within 10kb upstream and downstream of the TSS

# Usage

locusdef.mm10.10kb

# **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, mm10.

organism A character indicating the organism name. In this case, Mus musculus.

# **Details**

Built on Fri Apr 13 09:51:40 2018.

# Source

R packages: TxDb.Mmusculus.UCSC.mm10.knownGene\_3.4.0 and org.Mm.eg.db\_3.5.0. GEN-CODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.metadata.EntrezGene.gz

locusdef.mm10.10kb\_outside

locusdef.mm10.10kb\_outside locus definition

# Description

A LocusDefinition where a gene locus is defined as the region beyond 10kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

### Usage

locusdef.mm10.10kb\_outside

#### **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, mm10.

organism A character indicating the organism name. In this case, Mus musculus.

# **Details**

Built on Fri Apr 13 09:51:41 2018.

# **Source**

R packages: TxDb.Mmusculus.UCSC.mm10.knownGene\_3.4.0 and org.Mm.eg.db\_3.5.0. GEN-CODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.metadata.EntrezGene.gz

locusdef.mm10.10kb\_outside\_upstream

locusdef.mm10.10kb\_outside\_upstream locus definition

### **Description**

A LocusDefinition where a gene locus is defined as the region beyond 10kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

# Usage

locusdef.mm10.10kb\_outside\_upstream

locusdef.mm10.1kb 87

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, mm10.

organism A character indicating the organism name. In this case, Mus musculus.

### **Details**

Built on Fri Apr 13 09:51:40 2018.

#### Source

R packages: TxDb.Mmusculus.UCSC.mm10.knownGene\_3.4.0 and org.Mm.eg.db\_3.5.0. GEN-CODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.metadata.EntrezGene.gz

locusdef.mm10.1kb

locusdef.mm10.1kb locus definition

# **Description**

A LocusDefinition where a gene locus is defined within 1kb upstream and downstream of the TSS.

# Usage

locusdef.mm10.1kb

# **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

genome.build A character indicating the genome build. In this case, mm10.

organism A character indicating the organism name. In this case, Mus musculus.

### **Details**

Built on Fri Apr 13 09:51:37 2018.

## Source

R packages: TxDb.Mmusculus.UCSC.mm10.knownGene\_3.4.0 and org.Mm.eg.db\_3.5.0. GEN-CODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.metadata.EntrezGene.gz

locusdef.mm10.1kb\_outside

locusdef.mm10.1kb\_outside locus definition

# Description

A LocusDefinition where a gene locus is defined as the region beyond 1kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

### Usage

locusdef.mm10.1kb\_outside

### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, mm10.

organism A character indicating the organism name. In this case, Mus musculus.

# **Details**

Built on Fri Apr 13 09:51:38 2018.

# **Source**

R packages: TxDb.Mmusculus.UCSC.mm10.knownGene\_3.4.0 and org.Mm.eg.db\_3.5.0. GEN-CODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.metadata.EntrezGene.gz

locusdef.mm10.1kb\_outside\_upstream

locusdef.mm10.1kb\_outside\_upstream locus definition

### **Description**

A LocusDefinition where a gene locus is defined as the region beyond 1kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

# Usage

locusdef.mm10.1kb\_outside\_upstream

locusdef.mm10.5kb

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

**genome.build** A character indicating the genome build. In this case, mm10.

organism A character indicating the organism name. In this case, Mus musculus.

### **Details**

Built on Fri Apr 13 09:51:37 2018.

#### Source

R packages: TxDb.Mmusculus.UCSC.mm10.knownGene\_3.4.0 and org.Mm.eg.db\_3.5.0. GEN-CODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.metadata.EntrezGene.gz

locusdef.mm10.5kb

locusdef.mm10.5kb locus definition

# **Description**

A LocusDefinition where a gene locus is defined within 5kb upstream and downstream of the TSS.

# Usage

locusdef.mm10.5kb

# **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, mm10.

organism A character indicating the organism name. In this case, Mus musculus.

### **Details**

Built on Fri Apr 13 09:51:38 2018.

### **Source**

R packages: TxDb.Mmusculus.UCSC.mm10.knownGene\_3.4.0 and org.Mm.eg.db\_3.5.0. GEN-CODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.metadata.EntrezGene.gz

locusdef.mm10.5kb\_outside

locusdef.mm10.5kb\_outside locus definition

# Description

A LocusDefinition where a gene locus is defined as the region beyond 5kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

### Usage

locusdef.mm10.5kb\_outside

#### **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, mm10.

organism A character indicating the organism name. In this case, Mus musculus.

# **Details**

Built on Fri Apr 13 09:51:39 2018.

# **Source**

R packages: TxDb.Mmusculus.UCSC.mm10.knownGene\_3.4.0 and org.Mm.eg.db\_3.5.0. GEN-CODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.metadata.EntrezGene.gz

locusdef.mm10.5kb\_outside\_upstream

locusdef.mm10.5kb\_outside\_upstream locus definition

### **Description**

A LocusDefinition where a gene locus is defined as the region beyond 5kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

# Usage

locusdef.mm10.5kb\_outside\_upstream

locusdef.mm10.exon 91

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, mm10.

organism A character indicating the organism name. In this case, Mus musculus.

### **Details**

Built on Fri Apr 13 09:51:39 2018.

#### **Source**

R packages: TxDb.Mmusculus.UCSC.mm10.knownGene\_3.4.0 and org.Mm.eg.db\_3.5.0. GEN-CODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.metadata.EntrezGene.gz

locusdef.mm10.exon

locusdef.mm10.exon locus definition

#### Description

A LocusDefinition where a gene locus is defined as the exons belonging to genes.

### Usage

locusdef.mm10.exon

# **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, mm10.

organism A character indicating the organism name. In this case, Mus musculus.

### **Details**

Built on Fri Apr 13 09:51:35 2018.

# Source

R packages: TxDb.Mmusculus.UCSC.mm10.knownGene\_3.4.0 and org.Mm.eg.db\_3.5.0. GEN-CODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.metadata.EntrezGene.gz

locusdef.mm10.intron locusdef.mm10.intron locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the introns belonging to genes.

# Usage

locusdef.mm10.intron

#### **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, mm10.

organism A character indicating the organism name. In this case, Mus musculus.

# **Details**

Built on Fri Apr 13 09:51:36 2018.

### **Source**

R packages: TxDb.Mmusculus.UCSC.mm10.knownGene\_3.4.0 and org.Mm.eg.db\_3.5.0. GEN-CODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.metadata.EntrezGene.gz

locusdef.mm10.nearest\_gene

locusdef.mm10.nearest\_gene locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region spanning the midpoints between adjacent TSSs and TESs.

# Usage

locusdef.mm10.nearest\_gene

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, mm10.

organism A character indicating the organism name. In this case, Mus musculus.

#### **Details**

Built on Fri Apr 13 09:51:33 2018.

#### **Source**

R packages: TxDb.Mmusculus.UCSC.mm10.knownGene\_3.4.0 and org.Mm.eg.db\_3.5.0. GEN-CODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.metadata.EntrezGene.gz

locusdef.mm10.nearest\_tss

locusdef.mm10.nearest\_tss locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region spanning the midpoints between adjacent TSSs.

# Usage

locusdef.mm10.nearest\_tss

# **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

genome.build A character indicating the genome build. In this case, mm10.

organism A character indicating the organism name. In this case, Mus musculus.

# **Details**

Built on Fri Apr 13 09:51:33 2018.

94 locusdef.mm9.10kb

#### Source

R packages: TxDb.Mmusculus.UCSC.mm10.knownGene\_3.4.0 and org.Mm.eg.db\_3.5.0. GEN-CODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.metadata.EntrezGene.gz

locusdef.mm9.10kb

locusdef.mm9.10kb locus definition

### **Description**

A LocusDefinition where a gene locus is defined within 10kb upstream and downstream of the TSS

# Usage

locusdef.mm9.10kb

### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, mm9.

**organism** A character indicating the organism name. In this case, Mus musculus.

# **Details**

Built on Fri Apr 13 09:50:44 2018.

# Source

R packages: TxDb.Mmusculus.UCSC.mm9.knownGene\_3.2.2 and org.Mm.eg.db\_3.5.0. GEN-CODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.metadata.EntrezGene.gz

locusdef.mm9.10kb\_outside

locusdef.mm9.10kb\_outside locus definition

# Description

A LocusDefinition where a gene locus is defined as the region beyond 10kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

### Usage

locusdef.mm9.10kb\_outside

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, mm9.

organism A character indicating the organism name. In this case, Mus musculus.

# **Details**

Built on Fri Apr 13 09:50:44 2018.

# **Source**

 $R\ packages:\ TxDb.Mmusculus.UCSC.mm9.knownGene\_3.2.2\ and\ org.Mm.eg.db\_3.5.0.\ GEN-CODE\ resources:\ ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.annotation.gff3.gz\ and\ ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.metadata.EntrezGene.gz$ 

locusdef.mm9.10kb\_outside\_upstream

 $locus def.mm 9.10 kb\_out side\_up stream\ locus\ definition$ 

### **Description**

A LocusDefinition where a gene locus is defined as the region beyond 10kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

# Usage

locusdef.mm9.10kb\_outside\_upstream

96 locusdef.mm9.1kb

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

genome.build A character indicating the genome build. In this case, mm9.

organism A character indicating the organism name. In this case, Mus musculus.

### **Details**

Built on Fri Apr 13 09:50:44 2018.

#### Source

R packages: TxDb.Mmusculus.UCSC.mm9.knownGene\_3.2.2 and org.Mm.eg.db\_3.5.0. GEN-CODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.metadata.EntrezGene.gz

locusdef.mm9.1kb

locusdef.mm9.1kb locus definition

### **Description**

A LocusDefinition where a gene locus is defined within 1kb upstream and downstream of the TSS.

# Usage

locusdef.mm9.1kb

# **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, mm9.

organism A character indicating the organism name. In this case, Mus musculus.

### **Details**

Built on Fri Apr 13 09:50:41 2018.

### **Source**

R packages: TxDb.Mmusculus.UCSC.mm9.knownGene\_3.2.2 and org.Mm.eg.db\_3.5.0. GEN-CODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.metadata.EntrezGene.gz

locusdef.mm9.1kb\_outside

locusdef.mm9.1kb\_outside locus definition

# Description

A LocusDefinition where a gene locus is defined as the region beyond 1kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

### Usage

locusdef.mm9.1kb\_outside

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, mm9.

organism A character indicating the organism name. In this case, Mus musculus.

# **Details**

Built on Fri Apr 13 09:50:42 2018.

# **Source**

 $R\ packages:\ TxDb.Mmusculus.UCSC.mm9.knownGene\_3.2.2\ and\ org.Mm.eg.db\_3.5.0.\ GEN-CODE\ resources:\ ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.annotation.gff3.gz\ and\ ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.metadata.EntrezGene.gz$ 

locusdef.mm9.1kb\_outside\_upstream

locusdef.mm9.1kb\_outside\_upstream locus definition

### **Description**

A LocusDefinition where a gene locus is defined as the region beyond 1kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

# Usage

locusdef.mm9.1kb\_outside\_upstream

98 locusdef.mm9.5kb

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

genome.build A character indicating the genome build. In this case, mm9.

organism A character indicating the organism name. In this case, Mus musculus.

### **Details**

Built on Fri Apr 13 09:50:41 2018.

#### Source

R packages: TxDb.Mmusculus.UCSC.mm9.knownGene\_3.2.2 and org.Mm.eg.db\_3.5.0. GEN-CODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.metadata.EntrezGene.gz

locusdef.mm9.5kb

locusdef.mm9.5kb locus definition

### **Description**

A LocusDefinition where a gene locus is defined within 5kb upstream and downstream of the TSS.

# Usage

locusdef.mm9.5kb

# **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, mm9.

organism A character indicating the organism name. In this case, Mus musculus.

### **Details**

Built on Fri Apr 13 09:50:42 2018.

### **Source**

R packages: TxDb.Mmusculus.UCSC.mm9.knownGene\_3.2.2 and org.Mm.eg.db\_3.5.0. GEN-CODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.metadata.EntrezGene.gz

locusdef.mm9.5kb\_outside

locusdef.mm9.5kb\_outside locus definition

# Description

A LocusDefinition where a gene locus is defined as the region beyond 5kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

### Usage

locusdef.mm9.5kb\_outside

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, mm9.

organism A character indicating the organism name. In this case, Mus musculus.

# **Details**

Built on Fri Apr 13 09:50:43 2018.

# **Source**

 $R\ packages:\ TxDb.Mmusculus.UCSC.mm9.knownGene\_3.2.2\ and\ org.Mm.eg.db\_3.5.0.\ GEN-CODE\ resources:\ ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.annotation.gff3.gz\ and\ ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.metadata.EntrezGene.gz$ 

locusdef.mm9.5kb\_outside\_upstream

locusdef.mm9.5kb\_outside\_upstream locus definition

### **Description**

A LocusDefinition where a gene locus is defined as the region beyond 5kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

# Usage

locusdef.mm9.5kb\_outside\_upstream

100 locusdef.mm9.exon

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, mm9.

organism A character indicating the organism name. In this case, Mus musculus.

### **Details**

Built on Fri Apr 13 09:50:43 2018.

#### **Source**

R packages: TxDb.Mmusculus.UCSC.mm9.knownGene\_3.2.2 and org.Mm.eg.db\_3.5.0. GEN-CODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.metadata.EntrezGene.gz

locusdef.mm9.exon

locusdef.mm9.exon locus definition

#### Description

A LocusDefinition where a gene locus is defined as the exons belonging to genes.

### Usage

locusdef.mm9.exon

# **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, mm9.

organism A character indicating the organism name. In this case, Mus musculus.

### **Details**

Built on Fri Apr 13 09:50:39 2018.

# Source

R packages: TxDb.Mmusculus.UCSC.mm9.knownGene\_3.2.2 and org.Mm.eg.db\_3.5.0. GEN-CODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.metadata.EntrezGene.gz

locusdef.mm9.intron 101

locusdef.mm9.intron locusdef.mm9.intron locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the introns belonging to genes.

# Usage

locusdef.mm9.intron

### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, mm9.

organism A character indicating the organism name. In this case, Mus musculus.

# **Details**

Built on Fri Apr 13 09:50:41 2018.

### **Source**

R packages: TxDb.Mmusculus.UCSC.mm9.knownGene\_3.2.2 and org.Mm.eg.db\_3.5.0. GEN-CODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.metadata.EntrezGene.gz

locusdef.mm9.nearest\_gene

locusdef.mm9.nearest\_gene locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region spanning the midpoints between adjacent TSSs and TESs.

# Usage

locusdef.mm9.nearest\_gene

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, mm9.

organism A character indicating the organism name. In this case, Mus musculus.

#### **Details**

Built on Fri Apr 13 09:50:37 2018.

#### **Source**

R packages: TxDb.Mmusculus.UCSC.mm9.knownGene\_3.2.2 and org.Mm.eg.db\_3.5.0. GEN-CODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.metadata.EntrezGene.gz

locusdef.mm9.nearest\_tss

locusdef.mm9.nearest\_tss locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region spanning the midpoints between adjacent TSSs.

# Usage

locusdef.mm9.nearest\_tss

# Format

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, mm9.

organism A character indicating the organism name. In this case, Mus musculus.

# **Details**

Built on Fri Apr 13 09:50:37 2018.

locusdef.rn4.10kb

#### Source

R packages: TxDb.Mmusculus.UCSC.mm9.knownGene\_3.2.2 and org.Mm.eg.db\_3.5.0. GEN-CODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.metadata.EntrezGene.gz

locusdef.rn4.10kb

locusdef.rn4.10kb locus definition

### **Description**

A LocusDefinition where a gene locus is defined within 10kb upstream and downstream of the TSS.

# Usage

locusdef.rn4.10kb

### **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

genome.build A character indicating the genome build. In this case, rn4.

organism A character indicating the organism name. In this case, Rattus norvegicus.

### **Details**

For the rn4 genome, original gene IDs are from ENSEMBL and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:52:02 2018.

### Source

R packages: TxDb.Rnorvegicus.UCSC.rn4.ensGene\_3.2.2 and org.Rn.eg.db\_3.5.0.

locusdef.rn4.10kb\_outside

locusdef.rn4.10kb\_outside locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region beyond 10kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

# Usage

locusdef.rn4.10kb\_outside

### **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, rn4.

organism A character indicating the organism name. In this case, Rattus norvegicus.

# **Details**

For the rn4 genome, original gene IDs are from ENSEMBL and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:52:03 2018.

### Source

R packages: TxDb.Rnorvegicus.UCSC.rn4.ensGene\_3.2.2 and org.Rn.eg.db\_3.5.0.

locusdef.rn4.10kb\_outside\_upstream

 $locus def.rn 4.10 kb\_out side\_up stream\ locus\ definition$ 

# **Description**

A LocusDefinition where a gene locus is defined as the region beyond 10kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

# Usage

locusdef.rn4.10kb\_outside\_upstream

locusdef.rn4.1kb

#### **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, rn4.

organism A character indicating the organism name. In this case, Rattus norvegicus.

### **Details**

For the rn4 genome, original gene IDs are from ENSEMBL and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:52:02 2018.

#### **Source**

R packages: TxDb.Rnorvegicus.UCSC.rn4.ensGene\_3.2.2 and org.Rn.eg.db\_3.5.0.

locusdef.rn4.1kb

locusdef.rn4.1kb locus definition

### **Description**

A LocusDefinition where a gene locus is defined within 1kb upstream and downstream of the TSS.

### Usage

locusdef.rn4.1kb

# Format

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

**genome.build** A character indicating the genome build. In this case, rn4.

organism A character indicating the organism name. In this case, Rattus norvegicus.

# **Details**

For the rn4 genome, original gene IDs are from ENSEMBL and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:52:01 2018.

# Source

R packages: TxDb.Rnorvegicus.UCSC.rn4.ensGene 3.2.2 and org.Rn.eg.db 3.5.0.

locusdef.rn4.1kb\_outside

locusdef.rn4.1kb\_outside locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region beyond 1kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

# Usage

locusdef.rn4.1kb\_outside

### **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, rn4.

organism A character indicating the organism name. In this case, Rattus norvegicus.

# **Details**

For the rn4 genome, original gene IDs are from ENSEMBL and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:52:01 2018.

### Source

R packages: TxDb.Rnorvegicus.UCSC.rn4.ensGene\_3.2.2 and org.Rn.eg.db\_3.5.0.

locusdef.rn4.1kb\_outside\_upstream

locusdef.rn4.1kb\_outside\_upstream locus definition

### **Description**

A LocusDefinition where a gene locus is defined as the region beyond 1kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

# Usage

locusdef.rn4.1kb\_outside\_upstream

locusdef.rn4.5kb

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, rn4.

organism A character indicating the organism name. In this case, Rattus norvegicus.

### **Details**

For the rn4 genome, original gene IDs are from ENSEMBL and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:52:01 2018.

#### **Source**

R packages: TxDb.Rnorvegicus.UCSC.rn4.ensGene\_3.2.2 and org.Rn.eg.db\_3.5.0.

locusdef.rn4.5kb

locusdef.rn4.5kb locus definition

### **Description**

A LocusDefinition where a gene locus is defined within 5kb upstream and downstream of the TSS.

### Usage

locusdef.rn4.5kb

# Format

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

**genome.build** A character indicating the genome build. In this case, rn4.

organism A character indicating the organism name. In this case, Rattus norvegicus.

# **Details**

For the rn4 genome, original gene IDs are from ENSEMBL and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:52:01 2018.

### Source

R packages: TxDb.Rnorvegicus.UCSC.rn4.ensGene 3.2.2 and org.Rn.eg.db 3.5.0.

locusdef.rn4.5kb\_outside

locusdef.rn4.5kb\_outside locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region beyond 5kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

# Usage

locusdef.rn4.5kb\_outside

### **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, rn4.

organism A character indicating the organism name. In this case, Rattus norvegicus.

# **Details**

For the rn4 genome, original gene IDs are from ENSEMBL and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:52:02 2018.

### Source

R packages: TxDb.Rnorvegicus.UCSC.rn4.ensGene\_3.2.2 and org.Rn.eg.db\_3.5.0.

locusdef.rn4.5kb\_outside\_upstream

 $locus def.rn 4.5 kb\_out side\_up stream\ locus\ definition$ 

### **Description**

A LocusDefinition where a gene locus is defined as the region beyond 5kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

# Usage

locusdef.rn4.5kb\_outside\_upstream

locusdef.rn4.exon 109

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, rn4.

organism A character indicating the organism name. In this case, Rattus norvegicus.

#### **Details**

For the rn4 genome, original gene IDs are from ENSEMBL and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:52:02 2018.

#### **Source**

R packages: TxDb.Rnorvegicus.UCSC.rn4.ensGene\_3.2.2 and org.Rn.eg.db\_3.5.0.

locusdef.rn4.exon

locusdef.rn4.exon locus definition

#### **Description**

A LocusDefinition where a gene locus is defined as the exons belonging to genes.

#### Usage

locusdef.rn4.exon

#### **Format**

A Locus Definition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

**genome.build** A character indicating the genome build. In this case, rn4.

organism A character indicating the organism name. In this case, Rattus norvegicus.

#### **Details**

For the rn4 genome, original gene IDs are from ENSEMBL and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:51:59 2018.

#### **Source**

R packages: TxDb.Rnorvegicus.UCSC.rn4.ensGene\_3.2.2 and org.Rn.eg.db\_3.5.0.

locusdef.rn4.intron locusdef.rn4.intron locus definition

# Description

A LocusDefinition where a gene locus is defined as the introns belonging to genes.

#### Usage

locusdef.rn4.intron

### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

genome.build A character indicating the genome build. In this case, rn4.

organism A character indicating the organism name. In this case, Rattus norvegicus.

# **Details**

For the rn4 genome, original gene IDs are from ENSEMBL and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:52:00 2018.

#### **Source**

R packages: TxDb.Rnorvegicus.UCSC.rn4.ensGene\_3.2.2 and org.Rn.eg.db\_3.5.0.

locusdef.rn4.nearest\_gene

locusdef.rn4.nearest\_gene locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region spanning the midpoints between adjacent TSSs and TESs.

# Usage

locusdef.rn4.nearest\_gene

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

genome.build A character indicating the genome build. In this case, rn4.

organism A character indicating the organism name. In this case, Rattus norvegicus.

#### **Details**

For the rn4 genome, original gene IDs are from ENSEMBL and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:51:58 2018.

#### **Source**

R packages: TxDb.Rnorvegicus.UCSC.rn4.ensGene\_3.2.2 and org.Rn.eg.db\_3.5.0.

locusdef.rn4.nearest\_tss

locusdef.rn4.nearest\_tss locus definition

#### **Description**

A LocusDefinition where a gene locus is defined as the region spanning the midpoints between adjacent TSSs.

#### Usage

locusdef.rn4.nearest\_tss

# **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, rn4.

organism A character indicating the organism name. In this case, Rattus norvegicus.

#### **Details**

For the rn4 genome, original gene IDs are from ENSEMBL and so an additional step of converting to Entrez IDs is done.

Built on Fri Apr 13 09:51:58 2018.

#### **Source**

R packages: TxDb.Rnorvegicus.UCSC.rn4.ensGene\_3.2.2 and org.Rn.eg.db\_3.5.0.

locusdef.rn5.10kb

locusdef.rn5.10kb locus definition

#### **Description**

A LocusDefinition where a gene locus is defined within 10kb upstream and downstream of the TSS.

### Usage

locusdef.rn5.10kb

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, rn5.

organism A character indicating the organism name. In this case, Rattus norvegicus.

### **Details**

Built on Fri Apr 13 09:52:20 2018.

#### **Source**

R packages: TxDb.Rnorvegicus.UCSC.rn5.refGene\_3.4.2 and org.Rn.eg.db\_3.5.0.

locusdef.rn5.10kb\_outside

locusdef.rn5.10kb\_outside locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region beyond 10kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

## Usage

locusdef.rn5.10kb\_outside

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, rn5.

organism A character indicating the organism name. In this case, Rattus norvegicus.

#### **Details**

Built on Fri Apr 13 09:52:21 2018.

#### **Source**

R packages: TxDb.Rnorvegicus.UCSC.rn5.refGene\_3.4.2 and org.Rn.eg.db\_3.5.0.

locusdef.rn5.10kb\_outside\_upstream

locusdef.rn5.10kb\_outside\_upstream locus definition

### **Description**

A LocusDefinition where a gene locus is defined as the region beyond 10kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

### Usage

locusdef.rn5.10kb\_outside\_upstream

# Format

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

genome.build A character indicating the genome build. In this case, rn5.

organism A character indicating the organism name. In this case, Rattus norvegicus.

#### **Details**

Built on Fri Apr 13 09:52:21 2018.

#### **Source**

R packages: TxDb.Rnorvegicus.UCSC.rn5.refGene\_3.4.2 and org.Rn.eg.db\_3.5.0.

locusdef.rn5.1kb

locusdef.rn5.1kb locus definition

### **Description**

A LocusDefinition where a gene locus is defined within 1kb upstream and downstream of the TSS

### Usage

locusdef.rn5.1kb

### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

**genome.build** A character indicating the genome build. In this case, rn5.

organism A character indicating the organism name. In this case, Rattus norvegicus.

# **Details**

Built on Fri Apr 13 09:52:19 2018.

# Source

R packages: TxDb.Rnorvegicus.UCSC.rn5.refGene\_3.4.2 and org.Rn.eg.db\_3.5.0.

locusdef.rn5.1kb\_outside

locusdef.rn5.1kb\_outside locus definition

### **Description**

A LocusDefinition where a gene locus is defined as the region beyond 1kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

# Usage

locusdef.rn5.1kb\_outside

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

**genome.build** A character indicating the genome build. In this case, rn5.

organism A character indicating the organism name. In this case, Rattus norvegicus.

#### **Details**

Built on Fri Apr 13 09:52:19 2018.

#### **Source**

R packages: TxDb.Rnorvegicus.UCSC.rn5.refGene\_3.4.2 and org.Rn.eg.db\_3.5.0.

locusdef.rn5.1kb\_outside\_upstream

locusdef.rn5.1kb\_outside\_upstream locus definition

# **Description**

A LocusDefinition where a gene locus is defined as the region beyond 1kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

### Usage

locusdef.rn5.1kb\_outside\_upstream

# Format

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, rn5.

organism A character indicating the organism name. In this case, Rattus norvegicus.

#### **Details**

Built on Fri Apr 13 09:52:19 2018.

#### **Source**

R packages: TxDb.Rnorvegicus.UCSC.rn5.refGene\_3.4.2 and org.Rn.eg.db\_3.5.0.

locusdef.rn5.5kb

locusdef.rn5.5kb locus definition

# **Description**

A LocusDefinition where a gene locus is defined within 5kb upstream and downstream of the TSS.

### Usage

locusdef.rn5.5kb

### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

**genome.build** A character indicating the genome build. In this case, rn5.

organism A character indicating the organism name. In this case, Rattus norvegicus.

# **Details**

Built on Fri Apr 13 09:52:20 2018.

# Source

R packages: TxDb.Rnorvegicus.UCSC.rn5.refGene\_3.4.2 and org.Rn.eg.db\_3.5.0.

locusdef.rn5.5kb\_outside

locusdef.rn5.5kb\_outside locus definition

### **Description**

A LocusDefinition where a gene locus is defined as the region beyond 5kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

# Usage

locusdef.rn5.5kb\_outside

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, rn5.

organism A character indicating the organism name. In this case, Rattus norvegicus.

#### **Details**

Built on Fri Apr 13 09:52:20 2018.

#### **Source**

R packages: TxDb.Rnorvegicus.UCSC.rn5.refGene\_3.4.2 and org.Rn.eg.db\_3.5.0.

locusdef.rn5.5kb\_outside\_upstream

locusdef.rn5.5kb\_outside\_upstream locus definition

### **Description**

A LocusDefinition where a gene locus is defined as the region beyond 5kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

### Usage

 ${\tt locusdef.rn5.5kb\_outside\_upstream}$ 

#### **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, rn5.

organism A character indicating the organism name. In this case, Rattus norvegicus.

#### **Details**

Built on Fri Apr 13 09:52:20 2018.

#### **Source**

R packages: TxDb.Rnorvegicus.UCSC.rn5.refGene\_3.4.2 and org.Rn.eg.db\_3.5.0.

118 locusdef.rn5.intron

locusdef.rn5.exon

locusdef.rn5.exon locus definition

# Description

A LocusDefinition where a gene locus is defined as the exons belonging to genes.

### Usage

locusdef.rn5.exon

### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, rn5.

organism A character indicating the organism name. In this case, Rattus norvegicus.

### **Details**

Built on Fri Apr 13 09:52:17 2018.

### **Source**

R packages: TxDb.Rnorvegicus.UCSC.rn5.refGene\_3.4.2 and org.Rn.eg.db\_3.5.0.

locusdef.rn5.intron

locusdef.rn5.intron locus definition

#### **Description**

A LocusDefinition where a gene locus is defined as the introns belonging to genes.

#### Usage

locusdef.rn5.intron

#### Format

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

genome.build A character indicating the genome build. In this case, rn5.

organism A character indicating the organism name. In this case, Rattus norvegicus.

#### **Details**

Built on Fri Apr 13 09:52:19 2018.

#### **Source**

R packages: TxDb.Rnorvegicus.UCSC.rn5.refGene\_3.4.2 and org.Rn.eg.db\_3.5.0.

locusdef.rn5.nearest\_gene

locusdef.rn5.nearest\_gene locus definition

# Description

A Locus Definition where a gene locus is defined as the region spanning the midpoints between adjacent TSSs and TESs.

## Usage

locusdef.rn5.nearest\_gene

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

**genome.build** A character indicating the genome build. In this case, rn5.

organism A character indicating the organism name. In this case, Rattus norvegicus.

### **Details**

Built on Fri Apr 13 09:52:16 2018.

#### **Source**

R packages: TxDb.Rnorvegicus.UCSC.rn5.refGene\_3.4.2 and org.Rn.eg.db\_3.5.0.

120 locusdef.rn6.10kb

locusdef.rn5.nearest\_tss

locusdef.rn5.nearest\_tss locus definition

### **Description**

A LocusDefinition where a gene locus is defined as the region spanning the midpoints between adjacent TSSs.

### Usage

locusdef.rn5.nearest\_tss

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, rn5.

organism A character indicating the organism name. In this case, Rattus norvegicus.

### **Details**

Built on Fri Apr 13 09:52:16 2018.

# Source

R packages: TxDb.Rnorvegicus.UCSC.rn5.refGene\_3.4.2 and org.Rn.eg.db\_3.5.0.

locusdef.rn6.10kb

locusdef.rn6.10kb locus definition

### **Description**

A LocusDefinition where a gene locus is defined within 10kb upstream and downstream of the TSS.

# Usage

locusdef.rn6.10kb

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, rn6.

organism A character indicating the organism name. In this case, Rattus norvegicus.

#### **Details**

Built on Fri Apr 13 09:52:39 2018.

#### **Source**

R packages: TxDb.Rnorvegicus.UCSC.rn6.refGene\_3.4.1 and org.Rn.eg.db\_3.5.0.

locusdef.rn6.10kb\_outside

locusdef.rn6.10kb\_outside locus definition

### **Description**

A LocusDefinition where a gene locus is defined as the region beyond 10kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

#### Usage

locusdef.rn6.10kb\_outside

# Format

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

genome.build A character indicating the genome build. In this case, rn6.

organism A character indicating the organism name. In this case, Rattus norvegicus.

#### **Details**

Built on Fri Apr 13 09:52:40 2018.

#### Source

 $R\ packages:\ TxDb. Rnorvegicus. UCSC.rn6.refGene\_3.4.1\ and\ org. Rn. eg. db\_3.5.0.$ 

122 locusdef.rn6.1kb

locusdef.rn6.10kb\_outside\_upstream

locusdef.rn6.10kb\_outside\_upstream locus definition

### **Description**

A LocusDefinition where a gene locus is defined as the region beyond 10kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

### Usage

locusdef.rn6.10kb\_outside\_upstream

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

**genome.build** A character indicating the genome build. In this case, rn6.

organism A character indicating the organism name. In this case, Rattus norvegicus.

### **Details**

Built on Fri Apr 13 09:52:39 2018.

# Source

R packages: TxDb.Rnorvegicus.UCSC.rn6.refGene\_3.4.1 and org.Rn.eg.db\_3.5.0.

locusdef.rn6.1kb

locusdef.rn6.1kb locus definition

### **Description**

A LocusDefinition where a gene locus is defined within 1kb upstream and downstream of the TSS.

# Usage

locusdef.rn6.1kb

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, rn6.

organism A character indicating the organism name. In this case, Rattus norvegicus.

#### **Details**

Built on Fri Apr 13 09:52:38 2018.

#### **Source**

R packages: TxDb.Rnorvegicus.UCSC.rn6.refGene\_3.4.1 and org.Rn.eg.db\_3.5.0.

locusdef.rn6.1kb\_outside

locusdef.rn6.1kb\_outside locus definition

### **Description**

A LocusDefinition where a gene locus is defined as the region beyond 1kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

#### Usage

locusdef.rn6.1kb\_outside

#### **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

 $\begin{tabular}{ll} \textbf{genome.build} & A & character & indicating & the genome & build. In this case, rn6. \end{tabular}$ 

organism A character indicating the organism name. In this case, Rattus norvegicus.

#### **Details**

Built on Fri Apr 13 09:52:38 2018.

#### Source

 $R\ packages:\ TxDb. Rnorvegicus. UCSC.rn6.refGene\_3.4.1\ and\ org. Rn. eg. db\_3.5.0.$ 

124 locusdef.rn6.5kb

locusdef.rn6.1kb\_outside\_upstream

locusdef.rn6.1kb\_outside\_upstream locus definition

### **Description**

A LocusDefinition where a gene locus is defined as the region beyond 1kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

### Usage

locusdef.rn6.1kb\_outside\_upstream

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

**genome.build** A character indicating the genome build. In this case, rn6.

organism A character indicating the organism name. In this case, Rattus norvegicus.

### **Details**

Built on Fri Apr 13 09:52:38 2018.

# Source

R packages: TxDb.Rnorvegicus.UCSC.rn6.refGene\_3.4.1 and org.Rn.eg.db\_3.5.0.

locusdef.rn6.5kb

locusdef.rn6.5kb locus definition

### **Description**

A LocusDefinition where a gene locus is defined within 5kb upstream and downstream of the TSS.

# Usage

locusdef.rn6.5kb

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, rn6.

organism A character indicating the organism name. In this case, Rattus norvegicus.

#### **Details**

Built on Fri Apr 13 09:52:38 2018.

#### **Source**

R packages: TxDb.Rnorvegicus.UCSC.rn6.refGene\_3.4.1 and org.Rn.eg.db\_3.5.0.

locusdef.rn6.5kb\_outside

locusdef.rn6.5kb\_outside locus definition

### **Description**

A LocusDefinition where a gene locus is defined as the region beyond 5kb upstream and downstream of the TSS and bounded by the midpoints between the TSS and the next upstream and downstream TSSs.

#### Usage

locusdef.rn6.5kb\_outside

#### **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

 $\begin{tabular}{ll} \textbf{genome.build} & A & character & indicating & the genome & build. In this case, rn6. \end{tabular}$ 

organism A character indicating the organism name. In this case, Rattus norvegicus.

#### **Details**

Built on Fri Apr 13 09:52:39 2018.

#### Source

R packages: TxDb.Rnorvegicus.UCSC.rn6.refGene\_3.4.1 and org.Rn.eg.db\_3.5.0.

126 locusdef.rn6.exon

locusdef.rn6.5kb\_outside\_upstream

locusdef.rn6.5kb\_outside\_upstream locus definition

### **Description**

A LocusDefinition where a gene locus is defined as the region beyond 5kb upstream of the TSS and bounded by the midpoint between the TSS and the next upstream TSS.

### Usage

locusdef.rn6.5kb\_outside\_upstream

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, rn6.

organism A character indicating the organism name. In this case, Rattus norvegicus.

### **Details**

Built on Fri Apr 13 09:52:39 2018.

### **Source**

R packages: TxDb.Rnorvegicus.UCSC.rn6.refGene\_3.4.1 and org.Rn.eg.db\_3.5.0.

locusdef.rn6.exon

locusdef.rn6.exon locus definition

# Description

A LocusDefinition where a gene locus is defined as the exons belonging to genes.

# Usage

locusdef.rn6.exon

locusdef.rn6.intron 127

#### **Format**

A LocusDefinition object with the following slots:

**granges** A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

genome.build A character indicating the genome build. In this case, rn6.

organism A character indicating the organism name. In this case, Rattus norvegicus.

### **Details**

Built on Fri Apr 13 09:52:36 2018.

#### **Source**

R packages: TxDb.Rnorvegicus.UCSC.rn6.refGene\_3.4.1 and org.Rn.eg.db\_3.5.0.

locusdef.rn6.intron

locusdef.rn6.intron locus definition

#### **Description**

A LocusDefinition where a gene locus is defined as the introns belonging to genes.

# Usage

locusdef.rn6.intron

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

genome.build A character indicating the genome build. In this case, rn6.

organism A character indicating the organism name. In this case, Rattus norvegicus.

# Details

Built on Fri Apr 13 09:52:37 2018.

#### **Source**

R packages: TxDb.Rnorvegicus.UCSC.rn6.refGene\_3.4.1 and org.Rn.eg.db\_3.5.0.

locusdef.rn6.nearest\_gene

locusdef.rn6.nearest\_gene locus definition

# Description

A LocusDefinition where a gene locus is defined as the region spanning the midpoints between adjacent TSSs and TESs.

## Usage

locusdef.rn6.nearest\_gene

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

dframe A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and
 symbol

genome.build A character indicating the genome build. In this case, rn6.

organism A character indicating the organism name. In this case, Rattus norvegicus.

#### **Details**

Built on Fri Apr 13 09:52:35 2018.

### **Source**

R packages: TxDb.Rnorvegicus.UCSC.rn6.refGene\_3.4.1 and org.Rn.eg.db\_3.5.0.

locusdef.rn6.nearest\_tss

locusdef.rn6.nearest\_tss locus definition

# **Description**

A Locus Definition where a gene locus is defined as the region spanning the midpoints between adjacent TSSs.

# Usage

locusdef.rn6.nearest\_tss

LocusDefinition-class 129

#### **Format**

A LocusDefinition object with the following slots:

granges A GRanges of the locus definitions with mcols for Entrez Gene ID gene\_id and gene
 symbol symbol

**dframe** A data.frame of the locus definitions with columns for chr, start, end, gene\_id, and symbol

**genome.build** A character indicating the genome build. In this case, rn6.

organism A character indicating the organism name. In this case, Rattus norvegicus.

#### **Details**

Built on Fri Apr 13 09:52:34 2018.

#### **Source**

R packages: TxDb.Rnorvegicus.UCSC.rn6.refGene\_3.4.1 and org.Rn.eg.db\_3.5.0.

LocusDefinition-class Class "LocusDefinition"

# Description

A storage class representing gene locus definitions and their corresponding metadata.

#### **Objects from the Class**

Objects can be created by calls of the form new("LocusDefinition"). These objects are used internally by the chipenrich package and users will not likely need to create these.

# Slots

dframe: Object of class "data.frame". Each row represents a locus for a particular geneid.

granges: Object of class "GenomicRanges". Locus definitions stored as a GenomicRanges object.

genome.build: Object of class "character". Genome build these definitions were generated from.

organism: Object of class "character". Organism code.

#### Note

Not typically accessed by the user - this is used internally by the chipenrich package.

## Author(s)

Ryan Welch <welchr@umich.edu>

### **Examples**

```
# Show info about the class.
showClass("LocusDefinition");

# Example of what a locus definition object looks like.
data(locusdef.mm9.nearest_tss)
lapply(attributes(locusdef.mm9.nearest_tss), head)
```

```
mappa.hg19.10kb.100mer
```

mappa.hg19.10kb.100mer

# Description

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: 10kbK-Mer Reads: 100mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.hg19.10kb.100mer)
```

# **Format**

A data frame containing:

geneid Entrez Gene IDs
mappa Gene locus mappability

# Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

```
mappa.hg19.10kb.24mer mappa.hg19.10kb.24mer
```

### **Description**

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: 10kbK-Mer Reads: 24mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.hg19.10kb.24mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

# Author(s)

Ryan Welch <welchr@umich.edu>

# See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.hg19.10kb.36mer mappa.hg19.10kb.36mer
```

# Description

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: 10kbK-Mer Reads: 36mer

These objects are used internally by the chipenrich package.

## Usage

```
data(mappa.hg19.10kb.36mer)
```

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

#### Author(s)

Ryan Welch <welchr@umich.edu>

### See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.hg19.10kb.40mer mappa.hg19.10kb.40mer
```

# Description

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: 10kbK-Mer Reads: 40mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.hg19.10kb.40mer)
```

## **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

# Author(s)

Ryan Welch <welchr@umich.edu>

### See Also

```
mappa.hg19.10kb.50mer mappa.hg19.10kb.50mer
```

### **Description**

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: 10kbK-Mer Reads: 50mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.hg19.10kb.50mer)
```

### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

# Author(s)

Ryan Welch <welchr@umich.edu>

# See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.hg19.10kb.75mer mappa.hg19.10kb.75mer
```

# Description

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: 10kbK-Mer Reads: 75mer

These objects are used internally by the chipenrich package.

## Usage

```
data(mappa.hg19.10kb.75mer)
```

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

#### Author(s)

Ryan Welch <welchr@umich.edu>

### See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.hg19.1kb.100mer mappa.hg19.1kb.100mer
```

# Description

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: 1kbK-Mer Reads: 100mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.hg19.1kb.100mer)
```

## **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

# Author(s)

Ryan Welch <welchr@umich.edu>

### See Also

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```
mappa.hg19.1kb.24mer mappa.hg19.1kb.24mer
```

### **Description**

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: 1kbK-Mer Reads: 24mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.hg19.1kb.24mer)
```

### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

# Author(s)

Ryan Welch <welchr@umich.edu>

# See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.hg19.1kb.36mer mappa.hg19.1kb.36mer
```

# Description

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: 1kbK-Mer Reads: 36mer

These objects are used internally by the chipenrich package.

## Usage

```
data(mappa.hg19.1kb.36mer)
```

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

#### Author(s)

Ryan Welch <welchr@umich.edu>

### See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.hg19.1kb.40mer mappa.hg19.1kb.40mer
```

# Description

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: 1kbK-Mer Reads: 40mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.hg19.1kb.40mer)
```

## **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

# Author(s)

Ryan Welch <welchr@umich.edu>

### See Also

mappa.hg19.1kb.50mer

```
mappa.hg19.1kb.50mer mappa.hg19.1kb.50mer
```

### **Description**

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: 1kbK-Mer Reads: 50mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.hg19.1kb.50mer)
```

### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

# Author(s)

Ryan Welch <welchr@umich.edu>

# See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.hg19.1kb.75mer mappa.hg19.1kb.75mer
```

# Description

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: 1kbK-Mer Reads: 75mer

These objects are used internally by the chipenrich package.

## Usage

```
data(mappa.hg19.1kb.75mer)
```

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

#### Author(s)

Ryan Welch <welchr@umich.edu>

### See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.hg19.5kb.100mer mappa.hg19.5kb.100mer
```

# Description

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: 5kbK-Mer Reads: 100mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.hg19.5kb.100mer)
```

## **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

# Author(s)

Ryan Welch <welchr@umich.edu>

### See Also

```
mappa.hg19.5kb.24mer mappa.hg19.5kb.24mer
```

### **Description**

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: 5kbK-Mer Reads: 24mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.hg19.5kb.24mer)
```

### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

# Author(s)

Ryan Welch <welchr@umich.edu>

# See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.hg19.5kb.36mer mappa.hg19.5kb.36mer
```

# Description

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: 5kbK-Mer Reads: 36mer

These objects are used internally by the chipenrich package.

## Usage

```
data(mappa.hg19.5kb.36mer)
```

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

#### Author(s)

Ryan Welch <welchr@umich.edu>

### See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.hg19.5kb.40mer mappa.hg19.5kb.40mer
```

# Description

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: 5kbK-Mer Reads: 40mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.hg19.5kb.40mer)
```

## **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

# Author(s)

Ryan Welch <welchr@umich.edu>

### See Also

```
mappa.hg19.5kb.50mer mappa.hg19.5kb.50mer
```

### **Description**

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: 5kbK-Mer Reads: 50mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.hg19.5kb.50mer)
```

### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

# Author(s)

Ryan Welch <welchr@umich.edu>

# See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.hg19.5kb.75mer mappa.hg19.5kb.75mer
```

# Description

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: 5kbK-Mer Reads: 75mer

These objects are used internally by the chipenrich package.

## Usage

```
data(mappa.hg19.5kb.75mer)
```

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

# Author(s)

Ryan Welch <welchr@umich.edu>

### See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.hg19.exon.100mer mappa.hg19.exon.100mer
```

# Description

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: exonK-Mer Reads: 100mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.hg19.exon.100mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

# Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

```
mappa.hg19.exon.24mer mappa.hg19.exon.24mer
```

### **Description**

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: exonK-Mer Reads: 24mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.hg19.exon.24mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

# Author(s)

Ryan Welch <welchr@umich.edu>

# See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.hg19.exon.36mer mappa.hg19.exon.36mer
```

# Description

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: exonK-Mer Reads: 36mer

These objects are used internally by the chipenrich package.

## Usage

```
data(mappa.hg19.exon.36mer)
```

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

#### Author(s)

Ryan Welch <welchr@umich.edu>

### See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.hg19.exon.40mer mappa.hg19.exon.40mer
```

# Description

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: exonK-Mer Reads: 40mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.hg19.exon.40mer)
```

## **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

# Author(s)

Ryan Welch <welchr@umich.edu>

### See Also

```
mappa.hg19.exon.50mer mappa.hg19.exon.50mer
```

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: exonK-Mer Reads: 50mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.hg19.exon.50mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

### Author(s)

Ryan Welch <welchr@umich.edu>

# See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.hg19.exon.75mer mappa.hg19.exon.75mer
```

### Description

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: exonK-Mer Reads: 75mer

These objects are used internally by the chipenrich package.

```
data(mappa.hg19.exon.75mer)
```

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

## Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.hg19.intron.100mer mappa.hg19.intron.100mer
```

## Description

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: intronK-Mer Reads: 100mer

These objects are used internally by the chipenrich package.

### Usage

```
data(mappa.hg19.intron.100mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

### Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

```
mappa.hg19.intron.24mer
```

mappa.hg 19. in tron. 24 mer

## Description

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: intronK-Mer Reads: 24mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.hg19.intron.24mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

## Author(s)

Ryan Welch <welchr@umich.edu>

# See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.hg19.intron.36mer
```

mappa.hg19.intron.36mer

## Description

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: intronK-Mer Reads: 36mer

These objects are used internally by the chipenrich package.

```
data(mappa.hg19.intron.36mer)
```

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

## Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.hg19.intron.40mer mappa.hg19.intron.40mer
```

# Description

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: intronK-Mer Reads: 40mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.hg19.intron.40mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

# Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

```
mappa.hg19.intron.50mer
```

mappa.hg 19. in tron. 50 mer

## Description

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: intronK-Mer Reads: 50mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.hg19.intron.50mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

## Author(s)

Ryan Welch <welchr@umich.edu>

# See Also

For more information about gene locus definitions: chipenrich.data

## Description

Gene locus mappability data, calculated for:

• Build: hg19

Locus definition: intronK-Mer Reads: 75mer

These objects are used internally by the chipenrich package.

```
data(mappa.hg19.intron.75mer)
```

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

## Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

For more information about gene locus definitions: chipenrich.data

## Description

Gene locus mappability data, calculated for:

• Build: hg19

• Locus definition: nearest\_gene

• K-Mer Reads: 100mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.hg19.nearest_gene.100mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

## Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

Gene locus mappability data, calculated for:

• Build: hg19

• Locus definition: nearest\_gene

• K-Mer Reads: 24mer

These objects are used internally by the chipenrich package.

### Usage

```
data(mappa.hg19.nearest_gene.24mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

### Author(s)

Ryan Welch <welchr@umich.edu>

### See Also

For more information about gene locus definitions: chipenrich.data

## Description

Gene locus mappability data, calculated for:

• Build: hg19

• Locus definition: nearest\_gene

• K-Mer Reads: 36mer

These objects are used internally by the chipenrich package.

```
data(mappa.hg19.nearest_gene.36mer)
```

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

## Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

For more information about gene locus definitions: chipenrich.data

## Description

Gene locus mappability data, calculated for:

• Build: hg19

• Locus definition: nearest\_gene

• K-Mer Reads: 40mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.hg19.nearest_gene.40mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

# Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

Gene locus mappability data, calculated for:

• Build: hg19

• Locus definition: nearest\_gene

• K-Mer Reads: 50mer

These objects are used internally by the chipenrich package.

### Usage

```
data(mappa.hg19.nearest_gene.50mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

### Author(s)

Ryan Welch <welchr@umich.edu>

### See Also

For more information about gene locus definitions: chipenrich.data

## Description

Gene locus mappability data, calculated for:

• Build: hg19

• Locus definition: nearest\_gene

• K-Mer Reads: 75mer

These objects are used internally by the chipenrich package.

```
data(mappa.hg19.nearest_gene.75mer)
```

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

## Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

For more information about gene locus definitions: chipenrich.data

## Description

Gene locus mappability data, calculated for:

• Build: hg19

• Locus definition: nearest\_tss

• K-Mer Reads: 100mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.hg19.nearest_tss.100mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

### Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

Gene locus mappability data, calculated for:

• Build: hg19

• Locus definition: nearest\_tss

• K-Mer Reads: 24mer

These objects are used internally by the chipenrich package.

### Usage

```
data(mappa.hg19.nearest_tss.24mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

### Author(s)

Ryan Welch <welchr@umich.edu>

### See Also

For more information about gene locus definitions: chipenrich.data

## Description

Gene locus mappability data, calculated for:

• Build: hg19

• Locus definition: nearest\_tss

• K-Mer Reads: 36mer

These objects are used internally by the chipenrich package.

```
data(mappa.hg19.nearest_tss.36mer)
```

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

## Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

For more information about gene locus definitions: chipenrich.data

## Description

Gene locus mappability data, calculated for:

• Build: hg19

• Locus definition: nearest\_tss

• K-Mer Reads: 40mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.hg19.nearest_tss.40mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

### Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

Gene locus mappability data, calculated for:

• Build: hg19

• Locus definition: nearest\_tss

• K-Mer Reads: 50mer

These objects are used internally by the chipenrich package.

### Usage

```
data(mappa.hg19.nearest_tss.50mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

### Author(s)

Ryan Welch <welchr@umich.edu>

### See Also

For more information about gene locus definitions: chipenrich.data

## Description

Gene locus mappability data, calculated for:

• Build: hg19

• Locus definition: nearest\_tss

• K-Mer Reads: 75mer

These objects are used internally by the chipenrich package.

```
data(mappa.hg19.nearest_tss.75mer)
```

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

#### Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.mm9.10kb.100mer mappa.mm9.10kb.100mer
```

## Description

Gene locus mappability data, calculated for:

• Build: mm9

Locus definition: 10kbK-Mer Reads: 100mer

These objects are used internally by the chipenrich package.

## Usage

```
data(mappa.mm9.10kb.100mer)
```

### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

### Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

```
mappa.mm9.10kb.36mer mappa.mm9.10kb.36mer
```

Gene locus mappability data, calculated for:

• Build: mm9

Locus definition: 10kbK-Mer Reads: 36mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.mm9.10kb.36mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

### Author(s)

Ryan Welch <welchr@umich.edu>

# See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.mm9.10kb.40mer mappa.mm9.10kb.40mer
```

### Description

Gene locus mappability data, calculated for:

• Build: mm9

Locus definition: 10kbK-Mer Reads: 40mer

These objects are used internally by the chipenrich package.

```
data(mappa.mm9.10kb.40mer)
```

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

#### Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.mm9.10kb.50mer mappa.mm9.10kb.50mer
```

## Description

Gene locus mappability data, calculated for:

• Build: mm9

Locus definition: 10kbK-Mer Reads: 50mer

These objects are used internally by the chipenrich package.

## Usage

```
data(mappa.mm9.10kb.50mer)
```

### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

# Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

```
mappa.mm9.10kb.75mer mappa.mm9.10kb.75mer
```

Gene locus mappability data, calculated for:

• Build: mm9

Locus definition: 10kbK-Mer Reads: 75mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.mm9.10kb.75mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

### Author(s)

Ryan Welch <welchr@umich.edu>

# See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.mm9.1kb.100mer mappa.mm9.1kb.100mer
```

### Description

Gene locus mappability data, calculated for:

• Build: mm9

Locus definition: 1kbK-Mer Reads: 100mer

These objects are used internally by the chipenrich package.

```
data(mappa.mm9.1kb.100mer)
```

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

#### Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

For more information about gene locus definitions: chipenrich.data

mappa.mm9.1kb.36mer

mappa.mm9.1kb.36mer

## Description

Gene locus mappability data, calculated for:

• Build: mm9

Locus definition: 1kbK-Mer Reads: 36mer

These objects are used internally by the chipenrich package.

## Usage

```
data(mappa.mm9.1kb.36mer)
```

### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

### Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

mappa.mm9.1kb.40mer

mappa.mm9.1kb.40mer

### **Description**

Gene locus mappability data, calculated for:

• Build: mm9

Locus definition: 1kbK-Mer Reads: 40mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.mm9.1kb.40mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

### Author(s)

Ryan Welch <welchr@umich.edu>

# See Also

For more information about gene locus definitions: chipenrich.data

mappa.mm9.1kb.50mer

mappa.mm9.1kb.50mer

### Description

Gene locus mappability data, calculated for:

• Build: mm9

Locus definition: 1kbK-Mer Reads: 50mer

These objects are used internally by the chipenrich package.

```
data(mappa.mm9.1kb.50mer)
```

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

#### Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.mm9.1kb.75mer mappa.mm9.1kb.75mer
```

## Description

Gene locus mappability data, calculated for:

• Build: mm9

Locus definition: 1kbK-Mer Reads: 75mer

These objects are used internally by the chipenrich package.

## Usage

```
data(mappa.mm9.1kb.75mer)
```

### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

# Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

```
mappa.mm9.5kb.100mer mappa.mm9.5kb.100mer
```

Gene locus mappability data, calculated for:

• Build: mm9

Locus definition: 5kbK-Mer Reads: 100mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.mm9.5kb.100mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

### Author(s)

Ryan Welch <welchr@umich.edu>

# See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.mm9.5kb.36mer mappa.mm9.5kb.36mer
```

### Description

Gene locus mappability data, calculated for:

• Build: mm9

Locus definition: 5kbK-Mer Reads: 36mer

These objects are used internally by the chipenrich package.

```
data(mappa.mm9.5kb.36mer)
```

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

#### Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

For more information about gene locus definitions: chipenrich.data

mappa.mm9.5kb.40mer

mappa.mm9.5kb.40mer

## Description

Gene locus mappability data, calculated for:

• Build: mm9

Locus definition: 5kbK-Mer Reads: 40mer

These objects are used internally by the chipenrich package.

## Usage

```
data(mappa.mm9.5kb.40mer)
```

### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

# Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

mappa.mm9.5kb.50mer

mappa.mm9.5kb.50mer

### **Description**

Gene locus mappability data, calculated for:

• Build: mm9

Locus definition: 5kbK-Mer Reads: 50mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.mm9.5kb.50mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

### Author(s)

Ryan Welch <welchr@umich.edu>

# See Also

For more information about gene locus definitions: chipenrich.data

mappa.mm9.5kb.75mer

mappa.mm9.5kb.75mer

### Description

Gene locus mappability data, calculated for:

• Build: mm9

Locus definition: 5kbK-Mer Reads: 75mer

These objects are used internally by the chipenrich package.

```
data(mappa.mm9.5kb.75mer)
```

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

#### Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.mm9.exon.100mer mappa.mm9.exon.100mer
```

## Description

Gene locus mappability data, calculated for:

• Build: mm9

Locus definition: exonK-Mer Reads: 100mer

These objects are used internally by the chipenrich package.

## Usage

```
data(mappa.mm9.exon.100mer)
```

### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

### Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

```
mappa.mm9.exon.36mer mappa.mm9.exon.36mer
```

Gene locus mappability data, calculated for:

• Build: mm9

Locus definition: exonK-Mer Reads: 36mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.mm9.exon.36mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

### Author(s)

Ryan Welch <welchr@umich.edu>

# See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.mm9.exon.40mer mappa.mm9.exon.40mer
```

### Description

Gene locus mappability data, calculated for:

• Build: mm9

Locus definition: exonK-Mer Reads: 40mer

These objects are used internally by the chipenrich package.

```
data(mappa.mm9.exon.40mer)
```

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

#### Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.mm9.exon.50mer mappa.mm9.exon.50mer
```

## Description

Gene locus mappability data, calculated for:

• Build: mm9

Locus definition: exonK-Mer Reads: 50mer

These objects are used internally by the chipenrich package.

## Usage

```
data(mappa.mm9.exon.50mer)
```

### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

# Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

```
mappa.mm9.exon.75mer mappa.mm9.exon.75mer
```

Gene locus mappability data, calculated for:

• Build: mm9

Locus definition: exonK-Mer Reads: 75mer

These objects are used internally by the chipenrich package.

#### Usage

```
data(mappa.mm9.exon.75mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

### Author(s)

Ryan Welch <welchr@umich.edu>

### See Also

For more information about gene locus definitions: chipenrich.data

#### **Description**

Gene locus mappability data, calculated for:

• Build: mm9

Locus definition: intronK-Mer Reads: 100mer

These objects are used internally by the chipenrich package.

```
data(mappa.mm9.intron.100mer)
```

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

## Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

For more information about gene locus definitions: chipenrich.data

```
{\tt mappa.mm9.intron.36mer}
```

mappa.mm9.intron.36mer

# Description

Gene locus mappability data, calculated for:

• Build: mm9

Locus definition: intronK-Mer Reads: 36mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.mm9.intron.36mer)
```

#### **Format**

A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability

# Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

```
mappa.mm9.intron.40mer
```

mappa.mm9.intron.40mer

## Description

Gene locus mappability data, calculated for:

• Build: mm9

Locus definition: intronK-Mer Reads: 40mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.mm9.intron.40mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

## Author(s)

Ryan Welch <welchr@umich.edu>

# See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.mm9.intron.50mer
```

mappa.mm9.intron.50mer

## Description

Gene locus mappability data, calculated for:

• Build: mm9

Locus definition: intronK-Mer Reads: 50mer

These objects are used internally by the chipenrich package.

```
data(mappa.mm9.intron.50mer)
```

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

## Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

For more information about gene locus definitions: chipenrich.data

```
mappa.mm9.intron.75mer
```

mappa.mm9.intron.75mer

# Description

Gene locus mappability data, calculated for:

• Build: mm9

Locus definition: intronK-Mer Reads: 75mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.mm9.intron.75mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

# Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

Gene locus mappability data, calculated for:

• Build: mm9

• Locus definition: nearest\_gene

• K-Mer Reads: 100mer

These objects are used internally by the chipenrich package.

### Usage

```
data(mappa.mm9.nearest_gene.100mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

### Author(s)

Ryan Welch <welchr@umich.edu>

### See Also

For more information about gene locus definitions: chipenrich.data

## Description

Gene locus mappability data, calculated for:

• Build: mm9

• Locus definition: nearest\_gene

• K-Mer Reads: 36mer

These objects are used internally by the chipenrich package.

```
data(mappa.mm9.nearest_gene.36mer)
```

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

## Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

For more information about gene locus definitions: chipenrich.data

## Description

Gene locus mappability data, calculated for:

• Build: mm9

• Locus definition: nearest\_gene

• K-Mer Reads: 40mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.mm9.nearest_gene.40mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

### Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

Gene locus mappability data, calculated for:

• Build: mm9

• Locus definition: nearest\_gene

• K-Mer Reads: 50mer

These objects are used internally by the chipenrich package.

### Usage

```
data(mappa.mm9.nearest_gene.50mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

### Author(s)

Ryan Welch <welchr@umich.edu>

### See Also

For more information about gene locus definitions: chipenrich.data

## Description

Gene locus mappability data, calculated for:

• Build: mm9

• Locus definition: nearest\_gene

• K-Mer Reads: 75mer

These objects are used internally by the chipenrich package.

```
data(mappa.mm9.nearest_gene.75mer)
```

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

## Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

For more information about gene locus definitions: chipenrich.data

## Description

Gene locus mappability data, calculated for:

• Build: mm9

• Locus definition: nearest\_tss

• K-Mer Reads: 100mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.mm9.nearest_tss.100mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

### Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

Gene locus mappability data, calculated for:

• Build: mm9

• Locus definition: nearest\_tss

• K-Mer Reads: 36mer

These objects are used internally by the chipenrich package.

### Usage

```
data(mappa.mm9.nearest_tss.36mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

### Author(s)

Ryan Welch <welchr@umich.edu>

### See Also

For more information about gene locus definitions: chipenrich.data

## Description

Gene locus mappability data, calculated for:

• Build: mm9

• Locus definition: nearest\_tss

• K-Mer Reads: 40mer

These objects are used internally by the chipenrich package.

```
data(mappa.mm9.nearest_tss.40mer)
```

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

## Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

For more information about gene locus definitions: chipenrich.data

## Description

Gene locus mappability data, calculated for:

• Build: mm9

• Locus definition: nearest\_tss

• K-Mer Reads: 50mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.mm9.nearest_tss.50mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

# Author(s)

Ryan Welch <welchr@umich.edu>

#### See Also

# Description

Gene locus mappability data, calculated for:

• Build: mm9

• Locus definition: nearest\_tss

• K-Mer Reads: 75mer

These objects are used internally by the chipenrich package.

# Usage

```
data(mappa.mm9.nearest_tss.75mer)
```

#### **Format**

```
A data frame containing:
geneid Entrez Gene IDs
mappa Gene locus mappability
```

### Author(s)

Ryan Welch <welchr@umich.edu>

# See Also

For more information about gene locus definitions: chipenrich.data

peaks\_E2F4

ChIP-seq Peaks for the E2F4 Transcription Factor

# Description

A dataset containing the binding locations (peaks) of the transcription factor E2F4 called from a ChIP-seq experiment

# Usage

```
peaks_E2F4
```

# Format

A data frame containing 16,245 peak binding locations. Each row is a peak location, and the 3 variables/columns are chromosome, start peak coordinate, and end peak coordinate. Peak coordinates are in hg19 (UCSC) coordinates.

#### Source

The data and information regarding the experiment can be found in the following publication:

Lee, B. K., A. A. Bhinge, et al. (2011). "Wide-ranging functions of E2F4 in transcriptional activation and repression revealed by genome-wide analysis." Nucleic Acids Res 39(9): 3558-3573.

# **Examples**

```
# Load E2F4 peak data.
data(peaks_E2F4)

# Print the first 10 peaks in the dataset.
print(head(peaks_E2F4))
```

peaks\_H3K4me3\_GM12878 ChIP-seq Peaks for the Histone Modification H3K4me3 in GM12878

# **Description**

A dataset containing the binding locations (peaks) of the histone modification H3K4me3 called from a ChIP-seq experiment in the GM12878 cell line

# Usage

```
peaks_H3K4me3_GM12878
```

# **Format**

A data frame containing 57,476 peak binding locations. Each row is a peak location, and the 3 variables/columns are chromosome, start peak coordinate, and end peak coordinate. Peak coordinates are in hg19 (UCSC) coordinates.

# **Source**

The data and information regarding the experiment can be found at the following ENCODE URL:

http://hgdownload.cse.ucsc.edu/goldenPath/hg19/encodeDCC/wgEncodeBroadHistone/wgEncodeBroadHistoneGm128

# **Examples**

```
# Load H3K4me3 in GM12878 peak data.
data(peaks_H3K4me3_GM12878)

# Print the first 10 peaks in the dataset.
print(head(peaks_H3K4me3_GM12878))
```

```
spline.log_dtss.90ENCODE
```

DTSS Spline adjustment

# **Description**

A mgcv::gam object on a combined data of 90 ENCODE ChIP-seq datasets that modeled the relationship between a gene's locus length the distance from a peak to the gene's transcription start site, using a cubic spline. This is used to adjust for the proximity to TSSes test.

# Usage

```
spline.log_dtss.90ENCODE
```

#### **Format**

An object of class gam (inherits from glm, lm) of length 46.

tss.danRer10

tss.danRer10 TSS locations

# **Description**

A GRanges with all the TSSs for danRer10. Primarily used in the assign\_peaks() function to report distance of a peak to the nearest TSS. Also used to build the QC plot with distribution of peaks to TSSs.

### Usage

tss.danRer10

### **Format**

A GRanges object with the following mcols:

```
gene_id The Entrez ID for the TSS
symbol The gene symbol for the TSS
```

# **Source**

R packages: TxDb.Drerio.UCSC.danRer10.refGene\_3.4.2 and org.Dr.eg.db\_3.5.0.

184 tss.dm6

tss.dm3

tss.dm3 TSS locations

# **Description**

A GRanges with all the TSSs for dm3. Primarily used in the assign\_peaks() function to report distance of a peak to the nearest TSS. Also used to build the QC plot with distribution of peaks to TSSs

### Usage

tss.dm3

### **Format**

A GRanges object with the following mcols:

```
gene_id The Entrez ID for the TSS
symbol The gene symbol for the TSS
```

#### Source

R packages: TxDb.Dmelanogaster.UCSC.dm3.ensGene\_3.2.2 and org.Dm.eg.db\_3.5.0.

tss.dm6

tss.dm6 TSS locations

# Description

A GRanges with all the TSSs for dm6. Primarily used in the assign\_peaks() function to report distance of a peak to the nearest TSS. Also used to build the QC plot with distribution of peaks to TSSs.

# Usage

tss.dm6

### **Format**

A GRanges object with the following mcols:

```
gene_id The Entrez ID for the TSS
symbol The gene symbol for the TSS
```

#### **Source**

R packages: TxDb.Dmelanogaster.UCSC.dm6.ensGene\_3.4.1 and org.Dm.eg.db\_3.5.0.

tss.hg19

tss.hg19

tss.hg19 TSS locations

# **Description**

A GRanges with all the TSSs for hg19. Primarily used in the assign\_peaks() function to report distance of a peak to the nearest TSS. Also used to build the QC plot with distribution of peaks to TSSs.

#### Usage

tss.hg19

#### **Format**

A GRanges object with the following mcols:

gene\_id The Entrez ID for the TSS
symbol The gene symbol for the TSS

#### Source

R packages: TxDb.Hsapiens.UCSC.hg19.knownGene\_3.2.2 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.annota and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/GRCh37\_mapping/gencode.v25lift37.metadata.Ent

tss.hg38

tss.hg38 TSS locations

# **Description**

A GRanges with all the TSSs for hg38. Primarily used in the assign\_peaks() function to report distance of a peak to the nearest TSS. Also used to build the QC plot with distribution of peaks to TSSs.

# Usage

tss.hg38

# **Format**

A GRanges object with the following mcols:

gene\_id The Entrez ID for the TSS
symbol The gene symbol for the TSS

# Source

R packages: TxDb.Hsapiens.UCSC.hg38.knownGene\_3.4.0 and org.Hs.eg.db\_3.5.0. GENCODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_human/release\_25/gencode.v25.metadata.EntrezGene.gz

186 tss.mm9

tss.mm10

tss.mm10 TSS locations

# **Description**

A GRanges with all the TSSs for mm10. Primarily used in the assign\_peaks() function to report distance of a peak to the nearest TSS. Also used to build the QC plot with distribution of peaks to TSSs.

#### Usage

tss.mm10

#### **Format**

A GRanges object with the following mcols:

```
gene_id The Entrez ID for the TSS
symbol The gene symbol for the TSS
```

#### Source

R packages: TxDb.Mmusculus.UCSC.mm10.knownGene\_3.4.0 and org.Mm.eg.db\_3.5.0. GEN-CODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M12/gencode.vM12.metadata.EntrezGene.gz

tss.mm9

tss.mm9 TSS locations

# **Description**

A GRanges with all the TSSs for mm9. Primarily used in the assign\_peaks() function to report distance of a peak to the nearest TSS. Also used to build the QC plot with distribution of peaks to TSSs.

#### **Usage**

tss.mm9

# Format

A GRanges object with the following mcols:

```
gene_id The Entrez ID for the TSS
symbol The gene symbol for the TSS
```

# Source

R packages: TxDb.Mmusculus.UCSC.mm9.knownGene\_3.2.2 and org.Mm.eg.db\_3.5.0. GEN-CODE resources: ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.annotation.gff3.gz and ftp://ftp.sanger.ac.uk/pub/gencode/Gencode\_mouse/release\_M9/gencode.vM9.metadata.EntrezGene.gz

tss.rn4 187

tss.rn4

tss.rn4 TSS locations

# **Description**

A GRanges with all the TSSs for rn4. Primarily used in the assign\_peaks() function to report distance of a peak to the nearest TSS. Also used to build the QC plot with distribution of peaks to TSSs

### Usage

tss.rn4

#### **Format**

A GRanges object with the following mcols:

```
gene_id The Entrez ID for the TSS
symbol The gene symbol for the TSS
```

#### Source

R packages: TxDb.Rnorvegicus.UCSC.rn4.ensGene\_3.2.2 and org.Rn.eg.db\_3.5.0.

tss.rn5

tss.rn5 TSS locations

# Description

A GRanges with all the TSSs for rn5. Primarily used in the assign\_peaks() function to report distance of a peak to the nearest TSS. Also used to build the QC plot with distribution of peaks to TSSs.

# Usage

tss.rn5

### **Format**

A GRanges object with the following mcols:

```
gene_id The Entrez ID for the TSS
symbol The gene symbol for the TSS
```

#### **Source**

R packages: TxDb.Rnorvegicus.UCSC.rn5.refGene\_3.4.2 and org.Rn.eg.db\_3.5.0.

188 tss.rn6

tss.rn6

tss.rn6 TSS locations

# Description

A GRanges with all the TSSs for rn6. Primarily used in the assign\_peaks() function to report distance of a peak to the nearest TSS. Also used to build the QC plot with distribution of peaks to TSSs.

# Usage

tss.rn6

#### **Format**

A GRanges object with the following mcols:

gene\_id The Entrez ID for the TSS
symbol The gene symbol for the TSS

# Source

 $R\ packages:\ TxDb.Rnorvegicus.UCSC.rn6.refGene\_3.4.1\ and\ org.Rn.eg.db\_3.5.0.$ 

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