# Package 'lumiBarnes'

October 28, 2025

Title Barnes Benchmark Illumina Tissues Titration Data  Version 1.49.0  Date 2010-10-12  Author Pan Du  Maintainer Pan Du <dupan@northwestern.edu>  Description The Barnes benchmark dataset can be used to evaluate the algorithms for Illumina microarrays. It measured a titration series of two human tissues, blood and placenta, and includes six samples with the titration ratio of blood and placenta as 100:0, 95:5, 75:25, 50:50, 25:75 and 0:100. The samples were hybridized on Human-Ref-8 BeadChip (Illumina, Inc.) in duplicate. The data is loaded as an LumiBatch Object (see documents in the lumi package).  License LGPL  Depends R (&gt;= 2.0), Biobase (&gt;= 2.5.5), lumi (&gt;= 1.1.0)  biocViews ExperimentData, Tissue, MicroarrayData, ChipOnChipData git_url https://git.bioconductor.org/packages/lumiBarnes git_branch devel git_last_commit_date 2025-04-15  Repository Bioconductor 3.22  Date/Publication 2025-10-28  Contents  lumiBarnes  Lindex</dupan@northwestern.edu>	
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Barnes Benchmark Illumina Tissues Titration Data

### **Description**

The Barnes data set measured a titration series of two human tissues, blood and placenta. It includes six samples with the titration ratio of blood and placenta as 100:0, 95:5, 75:25, 50:50, 25:75 and 0:100. The samples were hybridized on HumanRef-8 BeadChip (Illumina, Inc) in duplicate. See (Barnes, et al., 2005) for details. The data is saved as a LumiBatch object and should be use together with lumi package.

Because the Barnes data utilized the pre-released version of HumanRef-8 version 1 BeadChip, some probes on the chip do not exist in the public released HumanRef-8 version 1 BeadChip. For annotation consistence, these probes was removed in the lumiBarnes package. For the interested users, the raw data can be downloaded from the paper companion website: http://www.bioinformatics.ubc.ca/pavlidis/lab/platform0

### Usage

data(lumiBarnes)

#### **Format**

lumiBarnes is a LumiBatch-class object.

#### Source

Barnes, M., Freudenberg, J., Thompson, S., Aronow, B. and Pavlidis, P. (2005) Ex-perimental comparison and cross-validation of the Affymetrix and Illumina gene expression analysis platforms, Nucleic Acids Res, 33, 5914-5923.

## **Examples**

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