

Package ‘EpiMix.data’

July 2, 2024

Title Data for the EpiMix package

Version 1.6.0

Description Supporting data for the EpiMix R package.

It include:

- HM450_lncRNA_probes.rda
- HM450_miRNA_probes.rda
- EPIC_lncRNA_probes.rda
- EPIC_miRNA_probes.rda
- EpigenomeMap.rda
- LUAD.sample.annotation
- TCGA_BatchData
- MET.data
- mRNA.data
- microRNA.data
- lncRNA.data
- Sample_EpiMixResults_lncRNA
- Sample_EpiMixResults_miRNA
- Sample_EpiMixResults_Regular
- Sample_EpiMixResults_Enhancer
- lncRNA expression data of tumors from TCGA that are stored in the ExperimentHub.

License GPL-3

Encoding UTF-8

Depends R (>= 4.2.0), ExperimentHub (>= 0.99.6)

Suggests rmarkdown, knitr

biocViews ExperimentData, ExperimentHub, Genome, RNASeqData,
ExpressionData

NeedsCompilation no

RoxygenNote 7.2.3

VignetteBuilder knitr

BugReports <https://github.com/gevaertlab/EpiMix/issues>

git_url <https://git.bioconductor.org/packages/EpiMix.data>

git_branch RELEASE_3_19

git_last_commit 23e9a5c
git_last_commit_date 2024-04-30
Repository Bioconductor 3.19
Date/Publication 2024-07-02
Author Yuanning Zheng [aut, cre]
Maintainer Yuanning Zheng <eric2021@stanford.edu>

Contents

| | |
|---|-----------|
| EPIC_lncRNA_probes | 2 |
| EPIC_miRNA_probes | 3 |
| EpigenomeMap | 3 |
| HM450_lncRNA_probes | 4 |
| HM450_miRNA_probes | 4 |
| lncRNA.data | 5 |
| LUAD.sample.annotation | 5 |
| MET.data | 6 |
| microRNA.data | 6 |
| mRNA.data | 7 |
| Sample_EpiMixResults_Enhancer | 7 |
| Sample_EpiMixResults_lncRNA | 8 |
| Sample_EpiMixResults_miRNA | 8 |
| Sample_EpiMixResults_Regular | 9 |
| TCGA_BatchData | 9 |
| Index | 10 |

| | |
|--------------------|---|
| EPIC_lncRNA_probes | <i>A character vector that maps CpG probes to lncRNA genes. The vectors names are genes and the values are CpG probes</i> |
|--------------------|---|

Description

A character vector that maps CpG probes to lncRNA genes. The vectors names are genes and the values are CpG probes

Usage

```
EPIC_lncRNA_probes
```

Format

A character vector with 205645 elements

Examples

```
## Not run:
data("EPIC_lncRNA_probes")

## End(Not run)
```

| | |
|-------------------|--|
| EPIC_miRNA_probes | <i>A dataframe that maps CpG probes genes to microRNA genes. The vectors names are genes and the values are CpG probes</i> |
|-------------------|--|

Description

A dataframe that maps CpG probes genes to microRNA genes. The vectors names are genes and the values are CpG probes

Usage

```
EPIC_miRNA_probes
```

Format

A dataframe with 23,907 rows and 4 columns

Examples

```
## Not run:
data("EPIC_miRNA_probes")

## End(Not run)
```

| | |
|--------------|--|
| EpigenomeMap | <i>A list that map epigenome groups to epigenome IDs</i> |
|--------------|--|

Description

The data were generated from the RoadmapEpigenomic project (Nature, PMID: 25693563, figure 2).

Usage

```
EpigenomeMap
```

Format

A list with 17 elements. The names are epigenome/tissue groups and the values are epigenome IDs for specific cells.

Examples

```
## Not run:  
data("EpigenomeMap")  
  
## End(Not run)
```

HM450_lncRNA_probes *A character vector that maps CpG probes to lncRNA genes. The vectors names are genes and the values are CpG probes*

Description

A character vector that maps CpG probes to lncRNA genes. The vectors names are genes and the values are CpG probes

Usage

```
HM450_lncRNA_probes
```

Format

A character vector with 108202 elements

Examples

```
## Not run:  
data("HM450_lncRNA_probes")  
  
## End(Not run)
```

HM450_miRNA_probes *A dataframe that maps CpG probes genes to microRNA genes.*

Description

A dataframe that maps CpG probes genes to microRNA genes.

Usage

```
HM450_miRNA_probes
```

Format

A dataframe with 17,495 rows and 4 columns

Examples

```
## Not run:  
data("HM450_miRNA_probes")  
  
## End(Not run)
```

lncRNA.data

Toy lncRNA expression dataset for demonstration purpose.

Description

This is a subset of lncRNA expression data from TCGA-LUAD, used for testing the program.

Usage

```
lncRNA.data
```

Format

a matrix

Examples

```
## Not run:  
data("lncRNA.data")  
  
## End(Not run)
```

LUAD.sample.annotation

toy dataset for sample annotation

Description

a dataframe with two columns: the first column is the patient identifier, and the second column is the sample annotation

Usage

```
LUAD.sample.annotation
```

Format

a dataframe

Examples

```
## Not run:  
data("LUAD.sample.annotation")  
  
## End(Not run)
```

MET.data

Toy DNA methylation dataset for demonstration purpose.

Description

This is a subset of DNA methylation data from TCGA-LUAD, used for testing the program.

Usage

MET.data

Format

a matrix

Examples

```
## Not run:  
data("MET.data")  
  
## End(Not run)
```

microRNA.data

Toy microRNA expression dataset for demonstration purpose.

Description

This is a subset of microRNA expression data from TCGA-LUAD, used for testing the program.

Usage

microRNA.data

Format

a matrix

Examples

```
## Not run:  
data("microRNA.data")  
  
## End(Not run)
```

`mRNA.data`*Toy gene expression dataset for demonstration purpose.*

Description

This is a subset of gene expression data from TCGA-LUAD, used for testing the program.

Usage`mRNA.data`**Format**

a matrix

Examples

```
## Not run:  
data("mRNA.data")  
  
## End(Not run)
```

`Sample_EpiMixResults_Enhancer`*toy dataset for EpiMix output with Enhancer mode*

Description

a list object returned from EpiMix

Usage`Sample_EpiMixResults_Enhancer`**Format**

a list

Examples

```
## Not run:  
data("Sample_EpiMixResults_Enhancer")  
  
## End(Not run)
```

Sample_EpiMixResults_lncRNA
toy dataset for EpiMix output with lncRNA mode

Description

a list object returned from EpiMix

Usage

```
Sample_EpiMixResults_lncRNA
```

Format

a list

Examples

```
## Not run:  
data("Sample_EpiMixResults_lncRNA")  
  
## End(Not run)
```

Sample_EpiMixResults_miRNA
toy dataset for EpiMix output with miRNA mode

Description

a list object returned from EpiMix

Usage

```
Sample_EpiMixResults_miRNA
```

Format

a list

Examples

```
## Not run:  
data("Sample_EpiMixResults_miRNA")  
  
## End(Not run)
```

Sample_EpiMixResults_Regular
toy dataset for EpiMix output with Regular mode

Description

a list object returned from EpiMix

Usage

```
Sample_EpiMixResults_Regular
```

Format

a list

Examples

```
## Not run:  
data("Sample_EpiMixResults_Regular")  
  
## End(Not run)
```

TCGA_BatchData *A dataframe with the batch information of TCGA patient.*

Description

a dataframe with two columns: the first column is the patient identifier, and the second column is the technical batch

Usage

```
TCGA_BatchData
```

Format

a dataframe

Examples

```
## Not run:  
data("TCGA_BatchData")  
  
## End(Not run)
```

Index

* internal

- EPIC_lncRNA_probes, 2
- EPIC_miRNA_probes, 3
- EpigenomeMap, 3
- HM450_lncRNA_probes, 4
- HM450_miRNA_probes, 4
- lncRNA.data, 5
- LUAD.sample.annotation, 5
- MET.data, 6
- microRNA.data, 6
- mRNA.data, 7
- Sample_EpiMixResults_Enhancer, 7
- Sample_EpiMixResults_lncRNA, 8
- Sample_EpiMixResults_miRNA, 8
- Sample_EpiMixResults_Regular, 9
- TCGA_BatchData, 9

- EPIC_lncRNA_probes, 2
- EPIC_miRNA_probes, 3
- EpigenomeMap, 3

- HM450_lncRNA_probes, 4
- HM450_miRNA_probes, 4

- lncRNA.data, 5
- LUAD.sample.annotation, 5

- MET.data, 6
- microRNA.data, 6
- mRNA.data, 7

- Sample_EpiMixResults_Enhancer, 7
- Sample_EpiMixResults_lncRNA, 8
- Sample_EpiMixResults_miRNA, 8
- Sample_EpiMixResults_Regular, 9

- TCGA_BatchData, 9