

Package ‘methylclockData’

November 12, 2024

Title Data for methylclock package

Description Collection of 9 datasets, andrews and bakulski cord blood, blood gse35069, blood gse35069 chen, blood gse35069 complete, combined cord blood, cord blood gse68456, gervin and lyle cord blood, quintivano dlpfc and saliva gse48472". Data downloaded from [meffil](https://github.com/perishky/meffil/). Data used to estimate cell counts using Extrinsic epigenetic age acceleration (EEAA) method Collection of 12 datasets to use with MethylClock package to estimate chronological and gestational DNA methylation with estimators to use with different methylation clocks

Version 1.14.0

BugReports <https://github.com/isglobal-brge/methylclockData/issues>

URL <https://github.com/isglobal-brge/methylclockData>

biocViews SpecimenSource, ExperimentHub, Tissue, OrganismData, Homo_sapiens_Data

Imports ExperimentHubData, ExperimentHub, utils

Suggests knitr, BiocStyle, rmarkdown

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NeedsCompilation no

Encoding UTF-8

RoxygenNote 7.1.2

VignetteBuilder knitr

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get_coefBLUP	<i>coefBLUP</i>
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Description

get_coefBLUP returns the Best Linear Unbiased Prediction (BLUP) clock coefficients

Usage

```
get_coefBLUP()
```

Value

coefBLUP dataset

Examples

```
get_coefBLUP()
```

<code>get_coefBohlin</code>	<code>coefBohlin</code>
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Description

`get_coefBohlin` returns the Bohlin's clock coefficients

Usage

`get_coefBohlin()`

Value

`coefBohlin` dataset

Examples

`get_coefBohlin()`

<code>get_coefEN</code>	<code>coefEN</code>
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Description

`get_coefEN` returns the Elastic Net (EN) clock coefficients

Usage

`get_coefEN()`

Value

`coefEN` dataset

Examples

`get_coefEN()`

get_coefEPIC	<i>coefEPIC</i>
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Description

get_coefEPIC returns the EPIC clock coefficients

Usage

```
get_coefEPIC()
```

Value

coefEPIC dataset

Examples

```
get_coefEPIC()
```

get_coefHannum	<i>coefHannum</i>
----------------	-------------------

Description

get_coefHannum returns the Hannum's clock coefficients

Usage

```
get_coefHannum()
```

Value

coefHannum dataset

Examples

```
get_coefHannum()
```

<code>get_coefHorvath</code>	<i>coefHorvath</i>
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Description

`get_coefHorvath` returns the Hobarth's clock coefficients

Usage

`get_coefHorvath()`

Value

`coefHorvath` dataset

Examples

`get_coefHorvath()`

<code>get_coefKnightGA</code>	<i>coefKnightGA</i>
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Description

`get_coefKnightGA` returns the Knight's clock coefficients

Usage

`get_coefKnightGA()`

Value

`coefKnightGA` dataset

Examples

`get_coefKnightGA()`

get_coefLeeGA	<i>coefLeeGA</i>
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Description

get_coefLeeGA returns the Lee's Gestational Age clock coefficients

Usage

```
get_coefLeeGA()
```

Value

coefLeeGA dataset

Examples

```
get_coefLeeGA()
```

get_coefLevine	<i>coefLevine</i>
----------------	-------------------

Description

get_coefLevine returns the Levine's clock coefficients

Usage

```
get_coefLevine()
```

Value

coefLevine dataset

Examples

```
get_coefLevine()
```

<code>get_coefMayneGA</code>	<i>coefMayneGA</i>
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Description

`get_coefMayneGA` returns the Mayne's clock coefficients

Usage

`get_coefMayneGA()`

Value

`coefMayneGA` dataset

Examples

`get_coefMayneGA()`

<code>get_coefPedBE</code>	<i>coefPedBE</i>
----------------------------	------------------

Description

`get_coefPedBE` returns the PedBE's clock coefficients

Usage

`get_coefPedBE()`

Value

`coefPedBE` dataset

Examples

`get_coefPedBE()`

get_coefSkin	<i>coefSkin</i>
--------------	-----------------

Description

get_coefSkin returns the Horvath's skin+blood clock coefficients

Usage

```
get_coefSkin()
```

Value

coefSkin dataset

Examples

```
get_coefSkin()
```

get_coefTL	<i>coefTL</i>
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Description

get_coefTL returns the Telomere Length clock coefficients

Usage

```
get_coefTL()
```

Value

coefTL dataset

Examples

```
get_coefTL()
```

<code>get_coefWu</code>	<i>Wu</i>
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Description

`get_coefWu` returns the Wu's clock coefficients

Usage

`get_coefWu()`

Value

Wu dataset

Examples

`get_coefWu()`

<code>get_cpgs_bn</code>	<i>cpgs_bn</i>
--------------------------	----------------

Description

`get_cpgs_bn` returns data to use Horvath's CpGs to train a Bayesian Neural Network (BNN)

Usage

`get_cpgs_bn()`

Value

`cpgs_bn` dataset

Examples

`get_cpgs_bn()`

`get_MethylationDataExample`
MethylationDataExample55

Description

`get_MethylationDataExample` `MethylationDataExample55` for vignette

Usage

`get_MethylationDataExample()`

Value

`MethylationDataExample55` dataset

Examples

`get_MethylationDataExample()`

`get_probeAnnotation21kdatMethUsed`
probeAnnotation21kdatMethUsed

Description

`get_probeAnnotation21kdatMethUsed` returns `probeAnnotation21kdatMethUsed`

Usage

`get_probeAnnotation21kdatMethUsed()`

Value

`probeAnnotation21kdatMethUsed` dataset

Examples

`get_probeAnnotation21kdatMethUsed()`

get_references	references
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Description

The methylclockData package is a repository of a few public datasets that needs the *methylclock* package to estimate chronological and gestational DNA methylation (DNAm) age as well as biological age using different methylation clocks.

Usage

```
get_references()
```

Format

A list with different data frame.

blood gse35069 complete methylation profiles from Reinius 2012 for purified blood cell types. It includes CD4T, CD8T, Mono,

blood gse35069 methylation profiles from Reinius 2012 for purified blood cell types. It includes CD4T, CD8T, Mono, Bcell, NK and Gran.

blood gse35069 chen methylation profiles from Chen 2017 blood cell types. It includes CD4T, CD8T, Mono, Bcell, NK, Neu and Eos.

andrews and bakulski cord blood Cord blood reference from Bakulski 2016. It includes Bcell, CD4T, CD8T, Gran, Mono, NK and nRBC.

cord blood gse68456 Cord blood methylation profiles from De 2015. It includes CD4T, CD8T, Mono, Bcell, NK, Neu, Eos and RBC.

gervin and lyle cord blood Cord blood reference generated by Kristina Gervin and Robert Lyle, available at 'miffil' package. It includes CD14, Bcell, CD4T, CD8T, NK, Gran.

saliva gse48472 Reference generated from the multi-tissue pannel from Slieker 2013. It includes Buccal, CD4T, CD8T, Mono, Bcell, NK, Gran.

Details

get_references returns the file with references data

Value

references dataset

Examples

```
get_references()
```

<code>get_TestDataset</code>	<i>TestDataset</i>
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Description

`get_TestDataset` returns `TestDataset`

Usage

```
get_TestDataset()
```

Value

`TestDataset` dataset

Examples

```
get_TestDataset()
```

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