

Package ‘marinerData’

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Title ExperimentHub data for the mariner package

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Description Subsampled Hi-C in HEK cells expressing the NHA9 fusion with an F to S mutated IDR (‘FS’) or without any mutations to the IDR (‘Wildtype’ or ‘WT’). These files are used for testing mariner functions and some examples.

License GPL-3

BugReports <https://support.bioconductor.org/t/marinerData>

Imports utils, ExperimentHub

Suggests knitr, rmarkdown, ExperimentHubData, testthat (>= 3.0.0)

biocViews ExperimentHub, ExperimentData, SequencingData

Encoding UTF-8

Roxygen list(markdown = TRUE)

RoxygenNote 7.2.3

Config/testthat/edition 3

VignetteBuilder knitr

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| FS_5kbLoops.txt | <i>Example NHA9 (FS) Loops</i> |
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Description

Loops called with SIP (<https://github.com/PouletAxel/SIP>) using Hi-C data from HEK cells expressing an NHA9 fusion with an F to S mutated IDR.

Value

Downloads and caches a .txt file in BEDPE format.

Examples

```
bedpeFile <- FS_5kbLoops.txt()
bedpeFile
```

| | |
|-----------------------------|------------------------------------|
| LEUK_HEK_PJA27_inter_30.hic | <i>Example NHA9 (FS) Hi-C data</i> |
|-----------------------------|------------------------------------|

Description

Subsampled Hi-C in HEK cells expressing the NHA9 fusion with an F to S mutated IDR.

Value

Downloads and caches a .hic file.

Examples

```
hicFile <- LEUK_HEK_PJA27_inter_30.hic()
hicFile
```

```
LEUK_HEK_PJA30_inter_30.hic
```

Example NHA9 (WT) Hi-C data

Description

Subsampled Hi-C in HEK cells expressing the NHA9 fusion with a Wildtype IDR.

Value

Downloads and caches a .hic file.

Examples

```
hicFile <- LEUK_HEK_PJA30_inter_30.hic()
hicFile
```

```
LIMA_0000.bedpe
```

Example Timecourse Loops

Description

Loops called with SIP (<https://github.com/PouletAxel/SIP>) using Hi-C data from THP-1 cells exposed to LPS & IF-G for 0 minutes.

Value

Downloads and caches a .bedpe file in BEDPE format.

Examples

```
bedpeFile <- LIMA_0000.bedpe()
bedpeFile
```

`LIMA_0030.bedpe`*Example Timecourse Loops*

Description

Loops called with SIP (<https://github.com/PouletAxel/SIP>) using Hi-C data from THP-1 cells exposed to LPS & IF-G for 30 minutes.

Value

Downloads and caches a .bedpe file in BEDPE format.

Examples

```
bedpeFile <- LIMA_0030.bedpe()
bedpeFile
```

`LIMA_0060.bedpe`*Example Timecourse Loops*

Description

Loops called with SIP (<https://github.com/PouletAxel/SIP>) using Hi-C data from THP-1 cells exposed to LPS & IF-G for 60 minutes.

Value

Downloads and caches a .bedpe file in BEDPE format.

Examples

```
bedpeFile <- LIMA_0060.bedpe()
bedpeFile
```

LIMA_0090.bedpe *Example Timecourse Loops*

Description

Loops called with SIP (<https://github.com/PouletAxel/SIP>) using Hi-C data from THP-1 cells exposed to LPS & IF-G for 90 minutes.

Value

Downloads and caches a .bedpe file in BEDPE format.

Examples

```
bedpeFile <- LIMA_0090.bedpe()
bedpeFile
```

LIMA_0120.bedpe *Example Timecourse Loops*

Description

Loops called with SIP (<https://github.com/PouletAxel/SIP>) using Hi-C data from THP-1 cells exposed to LPS & IF-G for 120 minutes.

Value

Downloads and caches a .bedpe file in BEDPE format.

Examples

```
bedpeFile <- LIMA_0120.bedpe()
bedpeFile
```

`LIMA_0240.bedpe`*Example Timecourse Loops*

Description

Loops called with SIP (<https://github.com/PouletAxel/SIP>) using Hi-C data from THP-1 cells exposed to LPS & IF-G for 240 minutes.

Value

Downloads and caches a .bedpe file in BEDPE format.

Examples

```
bedpeFile <- LIMA_0240.bedpe()
bedpeFile
```

`LIMA_0360.bedpe`*Example Timecourse Loops*

Description

Loops called with SIP (<https://github.com/PouletAxel/SIP>) using Hi-C data from THP-1 cells exposed to LPS & IF-G for 360 minutes.

Value

Downloads and caches a .bedpe file in BEDPE format.

Examples

```
bedpeFile <- LIMA_0360.bedpe()
bedpeFile
```

LIMA_1440.bedpe *Example Timecourse Loops*

Description

Loops called with SIP (<https://github.com/PouletAxel/SIP>) using Hi-C data from THP-1 cells exposed to LPS & IF-G for 1440 minutes.

Value

Downloads and caches a .bedpe file in BEDPE format.

Examples

```
bedpeFile <- LIMA_1440.bedpe()
bedpeFile
```

marinerData *ExperimentHub datasets for the mariner package*

Description

Subsampled Hi-C in HEK cells expressing the NHA9 fusion with an F to S mutated IDR ("FS") or without any mutations to the IDR ("Wildtype" or "WT"). Accompanying loop calls identified using SIP (<https://github.com/PouletAxel/SIP>) are also provided. For more information or full datasets, see <https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE143465>.

Also included are loop calls identified using SIP (<https://github.com/PouletAxel/SIP>) from a THP-1 activation timecourse after stimulation with LPS & IF-G for 0, 30, 60, 80, 120, 2440, 360, or 1440 minutes. For more information or full datasets, see <https://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE201353>.

These files are used for testing mariner functions and some examples.

Value

Downloads and caches .hic or BEDPE-formatted .txt files.

Author(s)

Eric S. Davis

| | |
|-----------------|--------------------------------|
| WT_5kbLoops.txt | <i>Example NHA9 (WT) Loops</i> |
|-----------------|--------------------------------|

Description

Loops called with SIP (<https://github.com/PouletAxel/SIP>) using Hi-C data from HEK cells expressing an NHA9 fusion with a Wildtype IDR.

Value

Downloads and caches a .txt file in BEDPE format.

Examples

```
bedpeFile <- WT_5kbLoops.txt()  
bedpeFile
```

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