Package ‘XhybCasneuf’

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Description Cross-hybridisation study on the ATH1 Affymetrix GeneChip
License Artistic-2.0
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NeedsCompilation no

R topics documented:

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Description

Affymetrix’ CDF probe set pairs

Usage

data(AffysTissue)
data(AffysTissueMC)
data(AffysTissue.noB1)
These three data.frames contain data for Affymetrix’ CDF’s probe set pairs with Q75 >= 55. The pr and target columns hold the names of probe set X and Y, respectively. Column alSum contains the Q75 value of the alignment scores of X’s reporters to the transcript of Y. The meant2hit and PSofTarget columns contain respectively the gene locus the probe set was designed to target and the probe set ID of the off-target Y, according to Affymetrix (extracted from ATH1-121501\_annot.csv). The peCC column holds the pairs’ Pearson correlation coefficient calculated on their expression intensities in the Tissue dataset (data originally from AtgenExpress Project).

AffysTissue is data.frame that contains all Affymetrix’ CDF’s probe set pairs with Q75 >= 55. AffysTissueMC holds a subset of the pairs in AffysTissue, namely those whose metacorrelation coefficient is not NA are included. For AffysTissue.noBl, the pairs of AffysTissue that align to each other with BLAST in at least one direction with an E-value smaller than $10^{-10}$ were omitted.

Author(s)

Tineke Casneuf &lt;tine@ebi.ac.uk&gt;

References


See Also

CustomsTissue

Examples

data(AffysTissue)
data(AffysTissueMC)
data(AffysTissue.noBl)

## see also the vignette

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CustomsTissue  Custom-made CDF’s probe set pairs

Description

Custom-made CDF’s probe set pairs

Usage

data(CustomsTissue)
data(CustomsTissueMC)
data(CustomsTissue.noBl)
These three data.frames contain data for the custom-made CDF's probe set pairs with Q75 >= 55. The pr and target columns hold the names of probe set X and Y, respectively. Column alSum contains the Q75 value of the alignment scores of X's reporters to the transcript of Y. The peCC column holds the pairs' Pearson correlation coefficient calculated on their expression intensities in the Tissue dataset (data originally from AtgenExpress Project).

CustomsTissue is data.frame that contains all custom-made CDF's probe set pairs with Q75 >= 55. CustomsTissueMC holds a subset of the pairs in CustomsTissue, namely those whose metacorrelation coefficient is not NA are included. For CustomsTissue.noBl, the pairs of CustomsTissue that align to each other with BLAST in at least one direction with an E-value smaller than $10^{-10}$ were omitted.

Author(s)
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References

See Also
`AffysTissue`

Examples
```r
data(CustomsTissue)
data(CustomsTissueMC)
data(CustomsTissue.noBl)
## see also the vignette
```

Description
Cross-hybridisation example

Usage
```r
data(ex1)
data(ex2)
data(ex3)
```

Format
These objects contain the data of three examples of cross-hybridisation.
runSimulation

Description
Cross-hybridisation simulation

Usage
runSimulation()

Format
runSimulation is a function that will run the simulation we ran for our study. By modifying the parameters, users can play with it themselves.

Author(s)
Tineke Casneuf <tine@ebi.ac.uk>

References
Casneuf, Van de Peer and Huber. Submitted.

Examples
runSimulation()
## see also the vignette
XhybExamples-class

Class "XhybExamples"

Description

Class containing information of cross-hybridisation examples

Objects from the Class

Objects can be created by calls of the form \texttt{new("XhybExamples", \ldots)}.

Slots

- \texttt{X}: Object of class "character" contains the ID of probe set X
- \texttt{Y}: Object of class "character" contains the ID of probe set Y
- \texttt{IVX}: Object of class "numeric" contains the expression intensities of X in the Tissue dataset
- \texttt{IVY}: Object of class "numeric" contains the expression intensities of Y in the Tissue dataset
- \texttt{IVXi}: Object of class "matrix" contains the expression intensities of X's reporters in the Tissue dataset
- \texttt{ai}: Object of class "numeric" contains the alignment scores of X's reporters to Y's transcript sequence

Methods

- \texttt{plotExample} signature(ex = "XhybExamples"): ...

Author(s)

Tineke Casneuf \texttt{<tine@ebi.ac.uk>}

References


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