

Package ‘seventyGeneData’

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Type Package

Title ExpressionSets from the van't Veer and Van de Vijver breast cancer studies

Version 1.28.0

Date 2013-05-25

Description Gene expression data for the two breast cancer cohorts published by van't Veer and Van de Vijver in 2002

biocViews ExperimentData, CancerData, BreastCancerData, MicroarrayData

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Depends R (>= 2.13.0)

Suggests Biobase, gdata, limma, breastCancerNKI

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URL <http://luigimarchionni.org/breastTSP.html>

LazyLoad yes

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seventyGeneData-package

Gene expression, annotations and clinical information for the van't Veer and Van de Vijver cohorts

Description

This package contains the two ExpressionSet instances corresponding to the breast cancer patients' cohorts published by van de Vijver and colleagues in NEJM (2002), and by van't Veer and colleagues in Nature (2002).

Usage

```
data(vantVeer)
data(vantDeVijver)
```

Format

The vantVeer ExpressionSet contains 24481 microarray features and 117 samples, while vanDeVijver ExpressionSet contains 24496 microarray features and 295 samples.

Details

```
Package:  seventyGenesData
Type:     Package
Version:  0.99.4
Date:     2013-03-25
License:  Artistic-2.0
```

Author(s)

Luigi Marchionni <marchion@gmail.com>

Source

<http://www.ncbi.nlm.nih.gov/pubmed/?term=11823860> <http://www.ncbi.nlm.nih.gov/pubmed/?term=12490681>

References

Laura J. van't Veer et al., "Gene expression profiling predicts clinical outcome of breast cancer", *Nature*, 2002, **415**:530-536

M. J. van de Vijver et al., "A Gene Expression Signature as a Predictor of Survival in Breast Cancer", *New England Journal of Medicine*, 2002, **347**(25):1999-2009

See Also

See [ExpressionSet](#)

Examples

```
### load Biobase package
library(Biobase)

### load the vantVeer dataset
data(vantVeer)
### load the vanDeVijver datasets
data(vanDeVijver)

### show the class of the vantVeer dataset
class(vantVeer)
### show the class of the vanDeVijver dataset
class(vanDeVijver)

### show the dimentions of the vantVeer dataset
dim(vantVeer)
### show the dimentions of the vanDeVijver dataset
dim(vanDeVijver)

### show the first 10 rows of the vantVeer phenotype data
head(pData(vantVeer), n=10)

### show the first 10 rows of the vanDeVijver phenotype data
head(pData(vanDeVijver), n=10)

### show the first 10 features of the vantVeer phenotype data
head(featureNames(vantVeer), n=10)

### show the first 10 features of the vanDeVijver phenotype data
head(featureNames(vanDeVijver), n=10)

### show the PubMed identifier and the abstract
pubMedIds(vanDeVijver)
```

vanDeVijver

Gene expression, annotations and clinical information for the Van de Vijver cohort

Description

This package contains the ExpressionSet instance for the gene expression data set published by Van de Vijver and colleagues.

Usage

```
data(vanDeVijver)
```

Format

The vanDeVijver ExpressionSet contains 24481 microarray features and 117 samples. The following components were included:

- `pData(vanDeVijver)`: an `AnnotatedDataFrame` for the breast cancer patients clinical information.
- `featureData(vanDeVijver)`: an `AnnotatedDataFrame` containing the microarray annotations.
- `experimentalData(vanDeVijver)`: a MIAME instance storing the data set and experiment information.
- `exprs(vanDeVijver)`: the gene expression matrix accounting for the log10 ratio between each sample and the reference RNA used in the experiment.
- `assayData(vanDeVijver)$intensity`: the matrix containing the geometrical mean intensity for both the Cy3 and the Cy5.
- `assayData(vanDeVijver)$exprsError`: the matrix containing the log10 ratio error.
- `assayData(vanDeVijver)$pValue`: the matrix accounting for the confidence level that a gene's mean ratio is significantly different from 1.

Details

This dataset corresponds to the breast cancer patients' cohort published by van de Vijver and colleagues in NEJM (2002).

Source

<http://www.ncbi.nlm.nih.gov/pubmed/?term=12490681>

References

M. J. van de Vijver et al., "A Gene Expression Signature as a Predictor of Survival in Breast Cancer", *New England Journal of Medicine*, 2002, **347**(25):1999-2009

See Also

See [ExpressionSet](#), [AnnotatedDataFrame](#) and [MIAME](#)

Examples

```
### load Biobase package
library(Biobase)

### load the vanDeVijver dataset
data(vanDeVijver)

### show the class of the vanDeVijver dataset
class(vanDeVijver)

### show the dimensions of the vanDeVijver dataset
dim(vanDeVijver)

### show the first 10 rows of the vanDeVijver phenotype data
head(pData(vanDeVijver), n=10)

### show the first 10 features of the vanDeVijver phenotype data
head(featureNames(vanDeVijver), n=10)

### show the PubMed identifier and the abstract
```

```
pubMedIds(vanDeVijver)
```

vantVeer	<i>Gene expression, annotations and clinical information for the van't Veer cohort</i>
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Description

This package contains the ExpressionSet instance for the gene expression data set published by van't Veer and colleagues.

Usage

```
data(vantVeer)
```

Format

The vantVeer ExpressionSet contains 24481 microarray features and 117 samples. The following components were included:

- `pData(vantVeer)`: an AnnotatedDataFrame for the breast cancer patients clinical information.
- `featureData(vantVeer)`: an AnnotatedDataFrame containing the microarray annotations.
- `experimentalData(vantVeer)`: a MIAME instance storing the data set and experiment information.
- `exprs(vantVeer)`: the gene expression matrix accounting for the log10 ratio between each sample and the reference RNA used in the experiment.
- `assayData(vantVeer)$intensity`: the matrix containing the geometrical mean intensity for both the Cy3 and the Cy5.
- `assayData(vantVeer)$pValue`: the matrix accounting for the confidence level that a gene's mean ratio is significantly different from 1.

Details

This dataset corresponds to the breast cancer patients' cohort published by van't Veer and colleagues in Nature (2002).

Source

<http://www.ncbi.nlm.nih.gov/pubmed/?term=11823860>

References

Laura J. van't Veer et al., "Gene expression profiling predicts clinical outcome of breast cancer", *Nature*, 2002, **415**:530-536

See Also

See [ExpressionSet](#), [AnnotatedDataFrame](#) and [MIAME](#)

Examples

```
### load Biobase package
library(Biobase)

### load the vantVeer dataset
data(vantVeer)

### show the class of the vantVeer dataset
class(vantVeer)

### show the dimensions of the vantVeer dataset
dim(vantVeer)

### show the first 10 rows of the vantVeer phenotype data
head(pData(vantVeer), n=10)

### show the first 10 features of the vantVeer phenotype data
head(featureNames(vantVeer), n=10)

### show the PubMed identifier and the abstract
pubMedIds(vantVeer)
```

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