Package ‘MetaGxBreast’

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Type Package

Title Transcriptomic Breast Cancer Datasets

Version 1.33.0

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Description A collection of Breast Cancer Transcriptomic Datasets that are part of the MetaGxData package compendium.

License Apache License (>= 2)

Depends R (>= 3.6.0), Biobase, AnnotationHub, ExperimentHub

Imports stats, lattice, impute, SummarizedExperiment

Suggests testthat, xtable, tinytex

NeedsCompilation no

biocViews ExpressionData, ExperimentHub, CancerData, Homo_sapiens_Data, ArrayExpress, GEO, NCI, MicroarrayData, ExperimentData

LazyData yes

RoxygenNote 7.1.1

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Contents

`CAL` *CAL*

Description

ExpressionSet for the CAL Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
  Laboratory:
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/17157792
  Title:
  URL: http://www.ebi.ac.uk/arrayexpress/experiments/E-TABM-158/
  PMIDs: 17157792
  No abstract available.
  notes:
   summary:
      Recurrent copy number abnormalities differ between tumor subtypes as defin
ed by gene expression patterns.  Accuracy of stratification by outcome can
 be improved by combining expression and copy number.
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (21169 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 21169 features, 118 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

   1 observation deleted due to missingness
      n  events  median 0.95LCL 0.95UCL
 117.00   77.00    8.96    8.33    9.71

---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
      118 character character

sample_type:
tumor
  118
```

```
er:
negative positive 
      43       75 

pgr:
negative positive     NA's 
      51       66        1 

tumor_size:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's 
  0.300   1.675   2.300   2.729   3.500   7.500       2 

N:
 0  1 
51 67 

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's 
  31.00   44.00   51.00   55.06   66.00   88.00       1 

grade:
   1    2    3 NA's 
  10   42   61    5 

dmfs_days:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's 
      0     767    2059    2094    3336    5183       1 

dmfs_status:
norecurrence   recurrence         NA's 
          91           26            1 

days_to_tumor_recurrence:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's 
      0     767    2059    2094    3336    5183       1 

recurrence_status:
norecurrence   recurrence         NA's 
          81           36            1 

days_to_death:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's 
     47    1117    2234    2347    3504    5183       1 

vital_status:
deceased   living 
      77       41 

treatment:
chemo.plus.hormono       chemotherapy     hormonotherapy          untreated 
                25                 36                 40                 14 
```

```
                 NA's
                    3

batch:
CAL
118

uncurated_author_metadata:
   Length     Class      Mode
      118 character character
```

Source

http://www.ebi.ac.uk/arrayexpress/experiments/E-TABM-158/

`DFHCC` *DFHCC*

Description

ExpressionSet for the DFHCC Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
  Laboratory:
  Contact information: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2826790/
  Title:
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE19615
  PMIDs: 20098429
  No abstract available.
  notes:
   summary:
      A small number of over-expressed and over-amplified genes were significant
ly associated with early recurrence despite adjuvant therapy.  This was ve
rified in independent cohorts.
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (42447 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 42447 features, 115 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
      115 character character

alt_sample_name:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
    6.0   155.0   230.0   293.3   398.5   828.0

sample_type:
tumor
  115

er:
negative positive
      45       70

pgr:
negative positive
      51       64

her2:
negative positive
      79       36

tumor_size:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
  0.800   1.350   2.100   2.312   2.850   6.500

N:
 0  1
62 53

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
  32.00   45.00   53.00   53.89   60.00   85.00

grade:
 1  2  3
23 28 64

dmfs_days:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
     30    1500    1920    1799    2325    2640

dmfs_status:
```

```
norecurrence   recurrence
         101           14

treatment:
chemo.plus.hormono       chemotherapy     hormonotherapy          untreated
                42                 38                 22                  7
              NA's
                 6

batch:
DFHCC
  115

uncurated_author_metadata:
   Length     Class      Mode
      115 character character
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE19615

`DFHCC2` *DFHCC2*

Description

Test the efficacy of treating TNBC with neoadjuvant cisplatin; explore biomarkers to identify predictors of response

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
  Laboratory:
  Contact information: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2834466/
  Title:
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE18864
  PMIDs: 20100965

  Abstract: A 16 word abstract is available. Use 'abstract' method.
  notes:
   summary:
      A subset of the patients experienced a response induced by cisplatin and b
iomarkers were identified that could predict response to cisplatin.
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
```

```
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (42447 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 42447 features, 84 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
       84 character character

unique_patient_ID:
   Length     Class      Mode
       84 character character

sample_type:
tumor
   84

er:
negative positive
      53       31

pgr:
negative positive
      53       31

her2:
negative positive
      66       18

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
  29.00   45.00   53.00   52.89   59.00   85.00

grade:
 1  2  3
10 16 58

treatment:
chemotherapy
          84
```

```
batch:
DFHCC2_CISPLATIN DFHCC2_REFERENCE
              24               60

uncurated_author_metadata:
   Length     Class      Mode
       84 character character

duplicates:
   Length     Class      Mode
       84 character character
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE18864

`DFHCC3` *DFHCC3*

Description

ExpressionSet for the DFHCC3 Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
  Laboratory:
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/16473279
  Title:
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE3744
  PMIDs: 16473279
  No abstract available.
  notes:
   summary:
      Basal like cancerse_often lack an inactivated X chromosome.e_Other markers
 found were duplication of the active X chromosome ande_nonheterochromatin
ized X chromosomal DNA. A small subset of X chromosomal genes were overexp
ressed. These abnormalities are thought to led to the pathogenesis of basa
l like cancers.
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
```

```
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (42447 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 42447 features, 40 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
       40 character character

alt_sample_name:
   Length     Class      Mode
       40 character character

sample_type:
tumor
   40

batch:
DFHCC3
    40

uncurated_author_metadata:
   Length     Class      Mode
       40 character character
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE3744

`DUKE` *DUKE*

Description

ExpressionSet for the DUKE Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
```

```
  Laboratory:
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/16273092
  Title:
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=gse3143
  PMIDs: 16273092
  No abstract available.
  notes:
   summary:
      It was shown that the activatione_status of several oncogenic pathways can
 bee_identified by gene expression signatures. These gene signatures ident
ify deregulation of pathways, associations with clinically relevant outcom
es, and characteristics of specific cancers and tumor subtypes.
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1000_at 1001_at ... AFFX-MurIL4_at (12085 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 12085 features, 171 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

   1 observation deleted due to missingness
      n  events  median 0.95LCL 0.95UCL
 170.00   43.00    9.01    6.22      NA

---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
      171 character character

alt_sample_name:
   Length     Class      Mode
      171 character character

sample_type:
tumor
  171
```

```
er:
negative positive
      57      114

pgr:
negative positive     NA's
      23       65       83

tumor_size:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
   0.20    1.80    2.30    2.74    3.50    8.50      83

N:
   0    1 NA's
  53   36   82

days_to_death:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
  171.0   417.0   957.5  1235.0  1852.0  4069.0       1

vital_status:
deceased   living     NA's
      43      127        1

batch:
DUKE
 171

uncurated_author_metadata:
   Length     Class      Mode
      171 character character

duplicates:
DUKE.DUKE_T00.622 DUKE.DUKE_T01.052 DUKE.DUKE_T01.522 DUKE.DUKE_T01.534
                1                 1                 1                 1
             NA's
              167
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=gse3143

`DUKE2` *DUKE2*

Description

Predicting response with gene signature

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
  Laboratory:
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/18024211
  Title:
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=gse6861
  PMIDs: 18024211

  Abstract: A 5 word abstract is available. Use 'abstract' method.
  notes:
   summary:
      Retraction in Lancet Feb 2011 (21277543); Regimen specific signatures were
 able to predict pathological complete response. Selecting patients with t
hese gene signataures could increase the proportion of patients with pCR t
han by basing clinical decisions on clinical factors.
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1053_3p_at 117_3p_at ... X79510cds_3p_s_at (45490
    total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 45490 features, 160 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
      160 character character

alt_sample_name:
   Length     Class      Mode
      160 character character

sample_type:
tumor
  160
```

```
er:
negative positive 
     123       37 

pgr:
negative positive     NA's 
     133       25        2 

N:
   0    1 NA's 
  58   95    7 

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's 
  26.00   43.00   49.00   49.41   56.00   70.00      35 

grade:
   1    2    3 NA's 
   2   37   70   51 

treatment:
chemotherapy 
         160 

batch:
DUKE2 
  160 

uncurated_author_metadata:
   Length     Class      Mode 
      160 character character 
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=gse6861

`dupplicates` *a list containing the names of patients that are believed to be dulicates across datasets*

Description

The object is a list where each element is a patient ID that is believed to be a duplicate of a patient in another dataset. Patients are designated as duplicated if they have Spearman correlations greater than or equal to 0.98 with other patient expression profiles

Format

A list with 107 elements, each of which is a patient ID.

`EMC2` *EMC2*

Description

ExpressionSet for the EMC2 Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
  Laboratory:
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/19421193
  Title:
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=gse12276
  PMIDs: 19421193
  No abstract available.
  notes:
   summary:
      Genes were identified that may increase the ability of breast cancer cells
 to infiltrate the blood-brain barrier.
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (42447 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 42447 features, 204 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
      204 character character

alt_sample_name:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
```

```
     1.00   51.75  102.50  102.50  153.20  204.00 

sample_type: 
tumor 
  204 

N: 
   0 NA's 
  48  156 

dmfs_days: 
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
      0     335     640     799    1098    3507 

dmfs_status: 
norecurrence   recurrence 
          19          185 

treatment: 
chemotherapy    untreated 
         156           48 

batch: 
EMC2 
 204 

uncurated_author_metadata: 
   Length     Class      Mode 
      204 character character 
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=gse12276

`EORTC10994` *EORTC10994*

Description

ExpressionSet for the EORTC10994 Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name: 
  Laboratory: 
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/?term=15897907 
  Title: 
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE1561 
```

```
  PMIDs: 15897907
  No abstract available.
  notes:
   summary:
      The tumors with an apocrine gene expression profile had strong histologica
l apocrine features. These tumors were androgen receptor positive and were
 all ER negative, creating further classifications of tumor cells based on
 steroid receptor activity- luminal which are ER and AR positive, basal th
at are ER and AR negative, and molecular apocrine that are ER negative and
 AR positive.
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (20967 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 20967 features, 49 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
       49 character character

alt_sample_name:
   Length     Class      Mode
       49 character character

sample_type:
tumor
   49

er:
negative positive
      22       27

pgr:
negative positive     NA's
      29       18        2
```

```
tumor_size:
 1  2  3  4 
 4 23 14  8 

N:
 0  1 
19 30 

grade:
   1    2    3 NA's 
   4   22   20    3 

batch:
EORTC10994 
        49 

uncurated_author_metadata:
   Length     Class      Mode 
       49 character character 
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE1561

`EXPO` *EXPO*

Description

ExpressionSet for the EXPO Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name: 
  Laboratory: 
  Contact information: 
  Title: 
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE2109
  PMIDs: 
  No abstract available.
  notes:
   summary:     
      N/A
   mapping.method:     
      maxRowVariance
   mapping.group:     
      EntrezGene.ID
   preprocessing:     
```

```
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (42447 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 42447 features, 353 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
      353 character character

alt_sample_name:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
   1005   21640  101100  134700  215900  486200

sample_type:
tumor
  353

er:
negative positive     NA's
      85      161      107

pgr:
negative positive     NA's
     114      129      110

her2:
negative positive     NA's
     166       61      126

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
  25.00   45.00   55.00   59.44   67.50   95.00       1

grade:
   1    2    3 NA's
  32  114  151   56

batch:
EXPO
 353
```

```
uncurated_author_metadata:
   Length     Class      Mode 
      353 character character 

duplicates:
EXPO.EXPO_GSM53027 EXPO.EXPO_GSM53059               NA's 
                 1                  1                351 
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE2109

`FNCLCC` *FNCLCC*

Description

ExpressionSet for the FNCLCC Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name:  
  Laboratory:  
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/?term=17659439 
  Title:  
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE7017 
  PMIDs: 17659439 
  No abstract available.
  notes:
   summary:     
      A potentially more powerful clinicogenomic model was created by combining
a subset of relevant genes from an already published gene expression signa
ture and a commonly used clinical prognostic model (NPI). The genes in thi
s model are known to have a role in breast cancer, carcinogenesis, or chem
otherapy resistance.
   mapping.method:     
      maxRowVariance
   mapping.group:     
      EntrezGene.ID
   preprocessing:     
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: UMGC_00005 UMGC_00007 ... UMGC_09018 (6064 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 6064 features, 150 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
      150 character character

alt_sample_name:
   Length     Class      Mode
      150 character character

sample_type:
tumor
  150

N:
  1
150

treatment:
chemotherapy
         150

batch:
FNCLCC
   150

uncurated_author_metadata:
   Length     Class      Mode
      150 character character
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE7017

`GSE25066` *GSE25066*

Description

ExpressionSet for the GSE25066 Dataset

Format

```
experimentData(eset):
Experiment data
```

```
  Experimenter name:
  Laboratory:
  Contact information:
  Title:
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE25066
  PMIDs: 21558518
  No abstract available.
  notes:
   summary:

   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (20967 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 20967 features, 508 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
      508 character character

alt_sample_name:
   Length     Class      Mode
      508 character character

sample_type:
tumor
  508

er:
negative positive     NA's
     205      297        6

pgr:
negative positive     NA's
     258      243        7
```

```
her2:
negative positive     NA's 
     485        6       17 

T:
 T0  T1  T2  T3  T4 
  3  30 255 145  75 

N:
  0   1 
157 351 

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
   24.0    42.0    49.0    49.8    58.0    75.0 

grade:
   1    2    3    4 NA's 
  32  180  259   15   22 

dmfs_days:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
    0.0   636.5   999.9  1088.0  1500.0  2717.0 

dmfs_status:
norecurrence   recurrence 
         397          111 

batch:
GSE25066 
     508 

uncurated_author_metadata:
   Length     Class      Mode 
      508 character character 

chemosensitivity_prediction:
Rx Insensitive   Rx Sensitive 
           339            169 

GGI_prediction:
High  Low 
 336  172 

PAM50_prediction:
 Basal   Her2   LumA   LumB Normal 
   189     37    160     78     44 

dlda30_prediction:
pCR  RD 
196 312 
```

```
RCB_prediction:
   RCB-0/I RCB-II/III
       230        278
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE25066

GSE32646 *GSE32646*

Description

ExpressionSet for the GSE32646 Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
  Laboratory:
  Contact information:
  Title:
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE32646
  PMIDs: 22320227
  No abstract available.
  notes:
   summary:

   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... 91952_at (42437 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 42437 features, 115 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------
```

```
sample_name:
   Length     Class      Mode 
      115 character character 

sample_type:
tumor 
  115 

er:
negative positive 
      44       71 

pgr:
negative positive 
      70       45 

her2:
negative positive 
      81       34 

T:
 1  2  3  4 
 5 87 18  5 

N:
 0  1 
32 83 

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
  27.00   45.00   51.00   51.49   59.00   73.00 

grade:
 1  2  3 
16 78 21 

batch:
GSE32646 
     115 

uncurated_author_metadata:
   Length     Class      Mode 
      115 character character 
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE32646

`GSE48091` *GSE48091*

Description

ExpressionSet for the GSE48091 Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
  Laboratory:
  Contact information:
  Title:
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE48091
  PMIDs: 26077471
  No abstract available.
  notes:
   summary:

   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 100121619_TGI_at 100121620_TGI_at ... 100314044_TGI_at
    (23246 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 23246 features, 623 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
      623 character character

sample_type:
tumor
  623
```

```
batch:
GSE48091
     623

uncurated_author_metadata:
   Length     Class      Mode
      623 character character
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE48091

GSE58644 *GSE58644*

Description

ExpressionSet for the GSE58644 Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
  Laboratory:
  Contact information:
  Title:
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE58644
  PMIDs: 25284793
  No abstract available.
  notes:
   summary:

   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 7896756 7896759 ... 8180179 (21462 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 21462 features, 321 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
      321 character character

alt_sample_name:
   Length     Class      Mode
      321 character character

sample_type:
tumor
  321

er:
negative positive     NA's
      70      250        1

her2:
negative positive     NA's
     256       58        7

tumor_size:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
  0.600   1.600   2.100   2.354   2.600  15.000

T:
   1    2    3    4 NA's
  43   59   13    1  205

N:
   0    1 NA's
 138  151   32

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
  29.00   49.00   58.00   58.82   68.00   93.00

grade:
   1    2    3 NA's
  26  135  159    1

dmfs_status:
norecurrence   recurrence
         295           26

dmfs_days:
```

```
      Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
         0    9496   17900   21620   33600   52590

   treatment:
   chemo.plus.hormono       chemotherapy     hormonotherapy          untreated
                   91                 29                 66                 10
                 NA's
                  125

   chemo:
      0    1 NA's
    105  123   93

   tamoxifen:
      0    1 NA's
     39  157  125

   herceptin:
      0    1 NA's
    190   12  119

   batch:
   GSE58644
        321

   uncurated_author_metadata:
      Length     Class      Mode
         321 character character

   duplicates:
      Length     Class      Mode
         321 character character
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE58644

`HLP` *HLP*

Description

ExpressionSet for the HLP Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
  Laboratory:
```

```
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/?term=19688261
  Title:
  URL: http://www.ebi.ac.uk/arrayexpress/experiments/E-TABM-543/
  PMIDs: 19688261
  No abstract available.
  notes:
   summary:
      The results show evidence of different patterns of genetic aberrations in
distinct molecular subtypes of breast cancer. Patterns of copy number aber
rations may drive biological phenomena characteristic to each subtype.
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 9g8cQB1TZtuiix.ulU fJUdX0IAn_P9VLTgJU ...
    xopB7pPn18FJ067uDs (26536 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 26536 features, 53 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
       53 character character

alt_sample_name:
   Length     Class      Mode
       53 character character

sample_type:
tumor
   53

er:
negative positive
      28       25

pgr:
negative positive
      33       20
```

```
her2:
negative positive
      40       13

tumor_size:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
  1.200   1.800   2.450   2.648   3.000   8.000       5

N:
   0    1 NA's
  27   25    1

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
  30.00   47.50   53.50   54.96   64.25   81.00       5

grade:
 3
53

batch:
HLP
 53

uncurated_author_metadata:
   Length     Class      Mode
       53 character character
```

Source

http://www.ebi.ac.uk/arrayexpress/experiments/E-TABM-543/

IRB *IRB*

Description

ExpressionSet for the IRB Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
  Laboratory:
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/18297396
  Title:
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE5460
  PMIDs: 18297396
  No abstract available.
```

```
  notes:
   summary:
      
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (42447 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 42447 features, 129 samples
Platform type: 
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode 
      129 character character 

alt_sample_name:
   Length     Class      Mode 
      129 character character 

sample_type:
tumor 
  129 

er:
negative positive 
      53       76 

her2:
negative positive 
      98       31 

tumor_size:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
  0.800   1.500   2.200   2.488   3.000   8.500 

N:
 0  1 
64 65 
```

```
grade:
 1  2  3 
27 32 70 

treatment:
untreated 
      129 

batch:
IRB 
129 

uncurated_author_metadata:
   Length     Class      Mode 
      129 character character 
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE5460

KOO *KOO*

Description

link does not work, in progress8

Format

```
experimentData(eset):
Experiment data
  Experimenter name: 
  Laboratory: 
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/12747878 
  Title: 
  URL: Unavailable 
  PMIDs: 12747878 

  Abstract: A 6 word abstract is available. Use 'abstract' method.
  notes:
   summary:     
      A new gene signature was used to accurately predict 90
n the study.
   mapping.method:     
      maxRowVariance
   mapping.group:     
      EntrezGene.ID
   preprocessing:     
      As published by original author.
```

```
featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at (280
    total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 280 features, 88 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
       88 character character

alt_sample_name:
   Length     Class      Mode
       88 character character

sample_type:
tumor
   88

er:
negative positive
      15       73

pgr:
negative positive
      23       65

tumor_size:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
   0.20    1.80    2.30    2.74    3.50    8.50

N:
 0  1
19 69

treatment:
chemotherapy    untreated
          61           27

batch:
KOO
 88
```

```
uncurated_author_metadata:
   Length     Class      Mode
       88 character character

duplicates:
   Length     Class      Mode
       88 character character
```

Source

Unavailable

`loadBreastDatasets` *Function to load breast cancer SummarizedExperiment objects from the Experiment Hub*

Description

This function returns breast cancer datasets from the hub and a vector of patients from the datasets that are duplicates based on a spearman correlation > 0.98

Usage

```
loadBreastDatasets(
  rescale = FALSE,
  minNumberGenes = 0,
  minNumberEvents = 0,
  minSampleSize = 0,
  keepCommonOnly = FALSE,
  imputeMissing = FALSE,
  removeDuplicates = FALSE
)
```

Arguments

`rescale`	apply centering and scaling to the expression sets (default FALSE)
`minNumberGenes`	an integer specifying to remove expression sets with less genes than this number (default 0)
`minNumberEvents`	an integer specifying how man survival events must be in the dataset to keep the dataset (default 0)
`minSampleSize`	an integer specifying the minimum number of patients required in a summarizedExperiment (default 0)
`keepCommonOnly`	remove entrezIDs not common to all datasets (default FALSE)
`imputeMissing`	remove patients from datasets with missing expression values
`removeDuplicates`	remove patients with a Spearman correlation greater than or equal to 0.98 with other patient expression profiles (default TRUE)

Value

A ‘list‘ with 2 elements. The First element named ‘SummarizedExperiment‘s contains the datasets. The second element named duplicates contains a vector with patient IDs for the duplicate patients (those with Spearman correlation greater than or equal to 0.98 with other patient expression profiles).

`loadBreastEsets` *Function to load breast cancer expression sets from the Experiment Hub*

Description

This function returns breast cancer datasets from the hub and a vector of patients from the datasets that are most likely duplicates

Usage

```
loadBreastEsets(
  loadString = "majority",
  removeDuplicates = TRUE,
  quantileCutoff = 0,
  rescale = FALSE,
  minNumberGenes = 0,
  minNumberEvents = 0,
  minSampleSize = 0,
  removeRetracted = TRUE,
  removeSubsets = TRUE,
  keepCommonOnly = FALSE,
  imputeMissing = FALSE
)
```

Arguments

`loadString`	a character vector specifying which data will be loaded. The default is "majority", which loads in 37 of the 39 datasets. The other option is to provide a character vecotr of the names of the datasets to load. The metabric and tcga datasets areloaded separately as they are very large and doing so will help prevent memory allocation errors for R windows. Furthermore, these datasets are so large that they dominate statistical analyses so it is best that they are analyzed separate of the 37 smaller datasets loaded with the string majority
`removeDuplicates`	remove patients with a Spearman correlation greater than or equal to 0.98 with other patient expression profiles (default TRUE)
`quantileCutoff`	A nueric between 0 and 1 specifying to remove genes with standard deviation below the required quantile (default 0)
`rescale`	apply centering and scaling to the expression sets (default FALSE)
`minNumberGenes`	an integer specifying to remove expression sets with less genes than this number (default 0)

`minNumberEvents`	an integer specifying how man survival events must be in the dataset to keep the dataset (default 0)
`minSampleSize`	an integer specifying the minimum number of patients required in an eset (default 0)
`removeRetracted`	remove datasets from retracted papers (default TRUE, currently just PMID17290060 dataset)
`removeSubsets`	remove datasets that are a subset of other datasets (defeault TRUE, currently just PMID19318476)
`keepCommonOnly`	remove probes not common to all datasets (default FALSE)
`imputeMissing`	remove patients from datasets with missing expression values

Value

a list with 2 elements. The First element named esets contains the datasets. The second element named duplicates contains a vector with patient IDs for the duplicate patients (those with Spearman correlation greater than or equal to 0.98 with other patient expression profiles).

Examples

```
## Use the default loadString="majority" if you want the 37 smaller datasets
esetsAndDups <- loadBreastEsets(loadString = c("CAL", "DFHCC", "DFHCC2",
    "DFHCC3", "DUKE", "DUKE2", "EMC2"))
```

`LUND` *LUND*

Description

ExpressionSet for the LUND Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
  Laboratory:
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/?term=18430221
  Title:
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE31863
  PMIDs: 18430221
  No abstract available.
  notes:
   summary:
      A significant difference was found between the ER positive subgroup and ER
 negative subgroup in the gene expression profiles.
   mapping.method:
      maxRowVariance
   mapping.group:
```

```
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: H200006618 H200006808 ... H300022925 (11154 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 11154 features, 143 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
      143 character character

alt_sample_name:
   Length     Class      Mode
      143 character character

sample_type:
tumor
  143

er:
negative positive
      29      114

pgr:
negative positive     NA's
      47       88        8

tumor_size:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
  0.200   1.100   1.500   1.486   1.800   4.000       2

N:
  0
143

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
  27.00   47.50   56.00   54.76   63.00   73.00

batch:
LUNDS1 LUNDS2 LUNDS3 LUNDS4
```

```
      30      47      22      44

   uncurated_author_metadata:
      Length     Class      Mode
         143 character character
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE31863

`LUND2` *LUND2*

Description

ExpressionSet for the LUND2 Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
  Laboratory:
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/?term=17452630
  Title:
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE5325
  PMIDs: 17452630
  No abstract available.
  notes:
   summary:
      Microarray signature was able to show PTEN mRNA losse_when IHC was unable,
 even though tumors exhibited PTEN loss behavior. Stathmim was an accurate
 IHC marker of the signature and had prognostic significance.
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1 2 ... 27648 (22008 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 22008 features, 105 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
      105 character character

alt_sample_name:
   Length     Class      Mode
      105 character character

sample_type:
tumor
  105

er:
negative positive
      60       45

treatment:
hormonotherapy
           105

batch:
LUND2
  105

uncurated_author_metadata:
   Length     Class      Mode
      105 character character
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE5325

`MAINZ` *MAINZ*

Description

ExpressionSet for the MAINZ Dataset

Format

```
experimentData(eset):
Experiment data
```

```
    Experimenter name:
    Laboratory:
    Contact information: http://www.ncbi.nlm.nih.gov/pubmed/?term=18593943
    Title:
    URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE11121
    PMIDs: 18593943
    No abstract available.
    notes:
     summary:
        Poor prognosis is noted in tumors with low ER expression, showing the high
  est level of proliferative activity. In some tumors with highly expressed
  B-cell or T-cell metagenes, metastases rarely occurred, even with high pro
  liferation and low ER expression.
     mapping.method:
        maxRowVariance
     mapping.group:
        EntrezGene.ID
     preprocessing:
        As published by original author.

  featureData(eset):
  An object of class 'AnnotatedDataFrame'
    featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
      (20967 total)
    varLabels: probeset gene EntrezGene.ID best_probe
    varMetadata: labelDescription
```

Details

```
assayData: 20967 features, 200 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
      200 character character

alt_sample_name:
   Length     Class      Mode
      200 character character

sample_type:
tumor
  200

er:
negative positive
      38      162

tumor_size:
```

```
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
  0.100   1.500   2.000   2.070   2.425   6.000 

N: 
  0 
200 

age_at_initial_pathologic_diagnosis: 
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
  25.00   50.00   60.00   59.98   69.00   90.00 

grade: 
  1   2   3 
 29 136  35 

dmfs_days: 
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
     30    1905    2715    2816    3855    7200 

dmfs_status: 
norecurrence   recurrence 
         154           46 

treatment: 
untreated 
      200 

batch: 
MAINZ 
  200 

uncurated_author_metadata: 
   Length     Class      Mode 
      200 character character 
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE11121

`MAQC2` *MAQC2*

Description

ExpressionSet for the MAQC2 Dataset

Format

```
experimentData(eset):
Experiment data
```

```
  Experimenter name:
  Laboratory:
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/?term=20064235
  Title:
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE20194
  PMIDs: 20064235
  No abstract available.
  notes:
   summary:
      It is possible to build multi-gene classifiers of clinical outcome. Predic
tion accuracy depends on training sample size and classification difficult
y.
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (20967 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 20967 features, 230 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
      230 character character

alt_sample_name:
   Length     Class      Mode
      230 character character

sample_type:
tumor
  230

er:
negative positive
      89      141

pgr:
negative positive
```

```
     126      104

her2:
negative positive
     190       40

N:
  0   1
 66 164

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
  26.00   45.00   51.00   52.02   59.00   79.00

grade:
  1   2   3
 13  94 123

treatment:
chemotherapy
         230

batch:
MAQC2
  230

uncurated_author_metadata:
   Length     Class      Mode
      230 character character
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE20194

`MCCC` *MCCC*

Description

ExpressionSet for the MCCC Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
  Laboratory:
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/?term=19960244
  Title:
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE19177
```

```
  PMIDs: 19960244
  No abstract available.
  notes:
   summary:
      Overall, expression and copy number profiling of familial tumors have show
n that the tumors show molecular heterogeneity similar to sporadic tumors
and are defined by their molecular subtypes rather than BRCA1 or BRCA2 ger
mline mutation status.
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: probe_10017 probe_10021 ... probe_7650767 (19048 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 19048 features, 75 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
       75 character character

sample_type:
tumor
   75

batch:
MCCC
  75

uncurated_author_metadata:
   Length     Class      Mode
       75 character character
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE19177

`MDA4` *MDA4*

Description

ExpressionSet for the MDA4 Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
  Laboratory:
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/?term=16896004
  Title:
  URL: http://bioinformatics.mdanderson.org/pubdata.html
  PMIDs: 16896004
  No abstract available.
  notes:
   summary:
      The developed 30-probe set has high sensitivity and negative predictive va
lue, accurately identifying 12 out of 13 patients with pCR and 27 out of 2
8 patients with residual disease.
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (21169 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 21169 features, 129 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
      129 character character

unique_patient_ID:
```

```
   Length     Class      Mode 
      129 character character 

sample_type: 
tumor 
  129 

er: 
negative positive     NA's 
      48       79        2 

pgr: 
negative positive     NA's 
      73       54        2 

her2: 
negative positive 
     114       15 

tumor_size: 
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's 
  0.000   0.500   1.800   2.162   3.000  10.000       8 

N: 
   0    1 NA's 
  59   62    8 

age_at_initial_pathologic_diagnosis: 
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
  28.00   43.00   51.00   51.43   61.00   73.00 

treatment: 
chemotherapy 
         129 

batch: 
MDA4 
 129 

uncurated_author_metadata: 
   Length     Class      Mode 
      129 character character 

duplicates: 
MDA4.MDA4_M207 MDA4.MDA4_M400           NA's 
             1              1            127 
```

Source

http://bioinformatics.mdanderson.org/pubdata.html

`METABRIC` *METABRIC*

Description

ExpressionSet for the METABRIC Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
  Laboratory:
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/22522925
  Title:
  URL: https://www.ebi.ac.uk/ega/studies/EGAS00000000083
  PMIDs: 22522925
  No abstract available.
  notes:
   summary:

   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: ILMN_1802380 ILMN_1736104 ... ILMN_1709472 (36155
    total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 36155 features, 2136 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

   165 observations deleted due to missingness
      n  events  median 0.95LCL 0.95UCL
 1971.0   891.0    12.3    11.6    13.2

---------------------------
Available sample meta-data:
---------------------------
```

```
sample_name:
   Length     Class      Mode 
     2136 character character 

alt_sample_name:
   Length     Class      Mode 
     2136 character character 

sample_type:
healthy   tumor 
    144    1992 

er:
negative positive     NA's 
     440     1508      188 

her2:
negative positive     NA's 
     676      148     1312 

tumor_size:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's 
  0.000   1.700   2.300   2.621   3.000  18.200     164 

N:
   0    1 NA's 
1042  950  144 

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's 
  21.93   51.36   61.78   61.13   70.76   96.29      13 

grade:
   1    2    3 NA's 
 170  775  957  234 

days_to_death:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's 
      3    1498    2632    2948    4357    9218     147 

vital_status:
deceased   living     NA's 
     891     1081      164 

treatment:
chemo.plus.hormono       chemotherapy     hormonotherapy          untreated 
               196                226               1029                685 

batch:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's 
  1.000   1.000   3.000   2.613   3.000   5.000     144 
```

```
uncurated_author_metadata:
   Length     Class      Mode
     2136 character character

duplicates:
   Length     Class      Mode
     2136 character character
```

Source

https://www.ebi.ac.uk/ega/studies/EGAS00000000083

MSK *MSK*

Description

ExpressionSet for the MSK Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
  Laboratory:
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/?term=16049480
  Title:
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=gse2603
  PMIDs: 16049480
  No abstract available.
  notes:
   summary:
      A set of genes were identified that mark and mediate metastasis to the lun
g. Some genes confer growth advantages to both the breast tumor and lung e
nvironment, while others contribute to aggressive growth specifically in t
he lung.
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (20967 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 20967 features, 99 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
       99 character character

alt_sample_name:
   Length     Class      Mode
       99 character character

sample_type:
tumor
   99

er:
negative positive
      42       57

pgr:
negative positive     NA's
      55       43        1

her2:
positive     NA's
      85       14

tumor_size:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
  1.100   2.450   3.200   3.624   4.300  10.000

N:
 0  1
34 65

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
  30.00   46.50   56.00   55.81   63.50   87.00

dmfs_days:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
    245    1279    1971    1888    2575    3924      17

dmfs_status:
norecurrence   recurrence         NA's
          55           27           17

batch:
```

```
MSK
 99

uncurated_author_metadata:
   Length     Class      Mode
       99 character character
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=gse2603

MUG *MUG*

Description

ExpressionSet for the MUG Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
  Laboratory:
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/?term=18592372
  Title:
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=gse10510
  PMIDs: 18592372
  No abstract available.
  notes:
   summary:
      A method was developed to separate tumor cells and their microenvironment
to test the prognostic abilities of the immune system. Results showed that
 lymphatic infiltration is beneficial for ER negative patients, but probab
ly not beneficial for ER positive patients.
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: H200000001 H200000005 ... opHsV04TC000043 (14288 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 14288 features, 152 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
      152 character character

alt_sample_name:
   Length     Class      Mode
      152 character character

sample_type:
tumor
  152

batch:
MUG
152

uncurated_author_metadata:
   Length     Class      Mode
      152 character character
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=gse10510

`NCCS` *NCCS*

Description

ExpressionSet for the NCCS Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
  Laboratory:
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/?term=18636107
  Title:
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=gse5364
  PMIDs: 18636107
  No abstract available.
  notes:
```

```
   summary:
      48 genes were identified that displayed highly restricted levels of expres
sion in tumors compared to normal tissues. This was validated in 11 indepe
ndent cohorts of different cancer types.
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (20967 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 20967 features, 183 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
      183 character character

alt_sample_name:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
    1.0    46.5    92.0    92.0   137.5   183.0

sample_type:
tumor
  183

batch:
NCCS
 183

uncurated_author_metadata:
   Length     Class      Mode
      183 character character
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=gse5364

`NCI` *NCI*

Description

ExpressionSet for the NCI Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
  Laboratory:
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/?term=12917485
  Title:
  URL: Supplemental data from paper
  PMIDs: 12917485
  No abstract available.
  notes:
   summary:
      Expression patterns were strongly associated with ER status, moderately as
sociated with grade, but not associated with menopausal state, node status
, or tumor size. Genes that were significantly associated with survival we
re identified.
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: AF106966 AF217974 ... Y12473 (5154 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 5154 features, 99 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
       99 character character

alt_sample_name:
```

```
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
  21580   21610   21640   21650   21670   21830 

sample_type: 
tumor 
   99 

er: 
negative positive 
      34       65 

tumor_size: 
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
   0.80    1.80    2.50    2.82    3.00    8.00 

N: 
 0  1 
46 53 

age_at_initial_pathologic_diagnosis: 
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
  33.00   49.00   57.00   57.47   64.50   90.00 

grade: 
 1  2  3 
16 38 45 

days_to_tumor_recurrence: 
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
      8     967    2057    1969    2930    4067 

recurrence_status: 
norecurrence   recurrence 
          54           45 

treatment: 
  chemotherapy hormonotherapy      untreated 
            10             78             11 

batch: 
NCI 
 99 

uncurated_author_metadata: 
   Length     Class      Mode 
       99 character character 
```

Source

Supplemental data from paper

NKI *NKI*

Description

ExpressionSet for the NKI Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
  Laboratory:
 Contact information: http://www.ncbi.nlm.nih.gov/pubmed/?term=12490681; http://www.ncbi.nlm.nih.
  Title:
  URL: Not available
  PMIDs: 12490681, 11823860
  No abstract available.
  notes:
   summary:
      It was found that the gene expression profile that was studied was more po
werful in predicting outcome of disease in younger patients than using sta
ndard clinical and pathological criteria.
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: Contig45645_RC Contig44916_RC ... Contig62037_RC (14960
    total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 14960 features, 337 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

   42 observations deleted due to missingness
      n  events  median 0.95LCL 0.95UCL
    295      79      NA      NA      NA

---------------------------
Available sample meta-data:
```

```
---------------------------

sample_name:
   Length     Class      Mode 
      337 character character 

alt_sample_name:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
    4.0   123.0   215.0   214.1   312.0   404.0 

sample_type:
tumor 
  337 

er:
negative positive 
      88      249 

tumor_size:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
  0.200   1.500   2.000   2.241   2.800   5.500 

N:
  0   1 
193 144 

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
   26.0    40.0    45.0    44.2    49.0    62.0 

grade:
  1   2   3 
 79 109 149 

dmfs_days:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's 
      9    1252    2414    2546    3602    6699      18 

dmfs_status:
norecurrence   recurrence         NA's 
         210          109           18 

days_to_tumor_recurrence:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's 
      9    1252    2414    2546    3602    6699      18 

recurrence_status:
norecurrence   recurrence         NA's 
         210          109           18 

days_to_death:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's 
```

```
     20    1934    2637    2870    3763    6694      42

vital_status:
deceased   living     NA's 
      79      216       42 

treatment:
  chemotherapy hormonotherapy      untreated 
            90             40            207 

batch:
 NKI NKI2 
 117  220 

uncurated_author_metadata:
   Length     Class      Mode 
      337 character character 
```

Source

Not available

PNC *PNC*

Description

ExpressionSet for the PNC Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name: 
  Laboratory: 
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/?term=21910250 
  Title: 
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE20711 
  PMIDs: GSE20711, PMID 21910250 
  No abstract available.
  notes:
   summary:     
      Breast tumors can be further divided than the currently known expression s
ubtypes based on DNA methylation profiles.
   mapping.method:     
      maxRowVariance
   mapping.group:     
      EntrezGene.ID
   preprocessing:     
      As published by original author.
```

```
featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (42447 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 42447 features, 92 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

   4 observations deleted due to missingness
      n  events  median 0.95LCL 0.95UCL
   88.0    25.0      NA    11.3      NA

---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
       92 character character

alt_sample_name:
   Length     Class      Mode
       92 character character

sample_type:
tumor
   92

er:
negative positive     NA's
      43       45        4

pgr:
negative positive     NA's
      43       40        9

her2:
negative positive     NA's
      64       26        2

tumor_size:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
  0.900   1.700   2.500   2.758   3.000  10.000       6

N:
```

```
    0    1 NA's
   43   40    9

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
  32.16   48.57   53.90   55.97   64.84   82.13       4

grade:
   1    2    3 NA's
  13    5   70    4

days_to_tumor_recurrence:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
     29     967    2216    2122    2931    5139       7

recurrence_status:
norecurrence   recurrence         NA's
          49           36            7

days_to_death:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
    318    1940    2372    2525    3043    5139       4

vital_status:
deceased   living     NA's
      25       63        4

batch:
PNC
 92

uncurated_author_metadata:
   Length     Class      Mode
       92 character character
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=GSE20711

`STK` *STK*

Description

ExpressionSet for the STK Dataset

Format

```
experimentData(eset):
Experiment data
```

```
  Experimenter name:
  Laboratory:
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/?term=16280042
  Title:
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=gse1456
  PMIDs: 16280042
  No abstract available.
  notes:
   summary:
      Expression profiling was able to better predict prognosis compared to hist
ological staging.
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... 244889_at (36178 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 36178 features, 159 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
      159 character character

alt_sample_name:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
    1.0    67.0   136.0   138.3   208.5   277.0

sample_type:
tumor
  159

er:
negative positive
      29      130

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
   31.0    48.0    56.0    57.8    68.5    87.0
```

```
grade:
   1    2    3 NA's 
  28   58   61   12 

days_to_tumor_recurrence:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
     66    2022    2467    2234    2846    3099 

recurrence_status:
norecurrence   recurrence 
         113           46 

treatment:
  chemotherapy hormonotherapy      untreated 
            89             48             22 

batch:
STK 
159 

uncurated_author_metadata:
   Length     Class      Mode 
      159 character character 
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=gse1456

`STNO2` *STNO2*

Description

ExpressionSet for the STNO2 Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name: 
  Laboratory: 
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/?term=12829800 
  Title: 
 URL: http://smd.princeton.edu/cgi-bin/publication/viewPublication.pl?pub_no=248
  PMIDs: 12829800 
  No abstract available.
  notes:
   summary:     
      Distinct breast cancer subtypes were determined by gene expression profile
s and were validated in other published datasets.
```

```
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: IMAGE:1020315 IMAGE:1030271 ... IMAGE:971399 (3663
    total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 3663 features, 118 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

      n  events  median 0.95LCL 0.95UCL
 118.00   46.00    4.67    3.34      NA

---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
      118 character character

alt_sample_name:
   Length     Class      Mode
      118 character character

sample_type:
tumor
  118

er:
negative positive     NA's
      31       82        5

tumor_size:
   1    2    3    4 NA's
   6   13   62   32    5

N:
   0    1 NA's
  34   79    5
```

```
age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
  21.00   46.25   58.00   58.47   71.75   85.00 

grade:
   1    2    3 NA's 
  11   49   53    5 

days_to_tumor_recurrence:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's 
  122.0   396.0   761.0   927.9  1233.0  2800.0      23 

recurrence_status:
norecurrence   recurrence 
          58           60 

days_to_death:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
     91     426     898    1019    1392    5722 

vital_status:
deceased   living 
      46       72 

treatment:
  chemotherapy hormonotherapy      untreated 
            23             73             22 

batch:
STN02 
  118 

uncurated_author_metadata:
   Length     Class      Mode 
      118 character character 
```

Source

http://smd.princeton.edu/cgi-bin/publication/viewPublication.pl?pub_no=248

`TCGA` *TCGA*

Description

ExpressionSet for the TCGA Dataset

Format

```
experimentData(eset):
```

```
Experiment data
  Experimenter name:
  Laboratory:
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/23000897
  Title:
  URL: http://cancergenome.nih.gov/
  PMIDs: 23000897
  No abstract available.
  notes:
   summary:

   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: A1BG A2M ... ARHGAP11A.2 (19504 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 19504 features, 1073 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

      n  events  median 0.95LCL 0.95UCL
1073.00  103.00   10.05    8.56   12.05

---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
     1073 character character

alt_sample_name:
   Length     Class      Mode
     1073 character character

unique_patient_ID:
   Length     Class      Mode
     1073 character character

sample_type:
tumor
```

```
 1073

er:
negative positive      NA's 
     233      790        50 

pgr:
negative positive      NA's 
     334      686        53 

her2:
negative positive      NA's 
     549      161       363 

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
  26.00   49.00   58.00   58.48   68.00   90.00 

days_to_death:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max. 
   -7.0   137.0   412.0   820.3  1180.0  6796.0 

vital_status:
deceased   living 
     103      970 

batch:
TCGA 
1073 

uncurated_author_metadata:
   Length     Class      Mode 
     1073 character character 
```

Source

http://cancergenome.nih.gov/

`TRANSBIG` *TRANSBIG*

Description

ExpressionSet for the TRANSBIG Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
```

```
  Laboratory:
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/?term=17545524
  Title:
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=gsE7390
  PMIDs: 17545524
  No abstract available.
  notes:
   summary:
      The 76-gene signature was validated. The results supports the hypothesis t
hat utilizing the gene signature could reduce the number of patients who r
eceive unnecessary adjuvant therapy.
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (20967 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 20967 features, 198 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

      n  events  median 0.95LCL 0.95UCL
  198.0    56.0      NA    17.1      NA

---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
      198 character character

sample_type:
tumor
  198

er:
negative positive
      64      134

tumor_size:
```

```
     Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
    0.600   1.700   2.000   2.181   2.500   5.000

  N:
    0
  198

  age_at_initial_pathologic_diagnosis:
     Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
    24.00   42.00   46.00   46.39   51.00   60.00

  grade:
     1    2    3 NA's
    30   83   83    2

  dmfs_days:
     Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
      125    2375    4384    3954    5566    9108

  dmfs_status:
  norecurrence   recurrence
           147           51

  days_to_tumor_recurrence:
     Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
      121    1528    3534    3399    5130    8711

  recurrence_status:
  norecurrence   recurrence
           112           86

  days_to_death:
     Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
      146    2744    4562    4150    5610    9108

  vital_status:
  deceased   living
        56      142

  treatment:
  untreated
        198

  batch:
  VDXGUYU VDXIGRU  VDXKIU VDXOXFU  VDXRHU
       36      50      51      24      37

  uncurated_author_metadata:
     Length     Class      Mode
        198 character character
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=gsE7390

`UCSF` *UCSF*

Description

ExpressionSet for the UCSF Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
  Laboratory:
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/?term=17428335; http://www.ncbi.nlm.nih
  Title:
  URL: Not available
  PMIDs: 17428335, 14612510
  No abstract available.
  notes:
   summary:
      A gene set was identified that correctly predicted outcomes more effective
ly than using histological markers.
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: probe_1 probe_3 ... probe_10365 (8015 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 8015 features, 162 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

   29 observations deleted due to missingness
      n  events  median 0.95LCL 0.95UCL
 133.00   44.00   11.56    9.25      NA

---------------------------
```

```
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode 
      162 character character 

alt_sample_name:
   Length     Class      Mode 
      162 character character 

sample_type:
tumor 
  162 

er:
negative positive     NA's 
      41      101       20 

pgr:
negative positive     NA's 
      46       94       22 

her2:
negative positive     NA's 
      35       19      108 

tumor_size:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's 
  0.000   1.800   2.000   2.682   3.200  11.000       7 

N:
   0    1 NA's 
  67   82   13 

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's 
  28.00   44.00   53.00   56.61   70.00   88.00       9 

grade:
   1    2    3 NA's 
  14   62   74   12 

dmfs_days:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's 
     47     897    2040    2084    2992    8267      29 

dmfs_status:
norecurrence   recurrence 
         140           22 

days_to_tumor_recurrence:
```

```
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's 
     47     861    1865    1985    2847    8267      29 

recurrence_status: 
norecurrence   recurrence 
         125           37 

days_to_death: 
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's 
     47    1087    2054    2140    3087    8267      29 

vital_status: 
deceased   living     NA's 
      54       99        9 

treatment: 
chemo.plus.hormono       chemotherapy     hormonotherapy          untreated 
                31                 38                 61                 22 
              NA's 
                10 

batch: 
UCSF 
 162 

uncurated_author_metadata: 
   Length     Class      Mode 
      162 character character 
```

Source

Not available

`UNC4` *UNC4*

Description

ExpressionSet for the UNC4 Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name: 
  Laboratory: 
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/?term=20813035 
  Title: 
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=gse18229 
  PMIDs: 20813035 
```

```
  No abstract available.
  notes:
   summary:
      Clinically, this subtype is usually triple negative invasive ductal carcin
omas with a poor prognosis. Response to standard of care preoperative chem
otherapy is intermediate between basal-like and luminal tumors. The claudi
n-low subtype most closely resembles the mammary epithelial stem cell.
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: probe.10 probe.12 ... probe.79701 (5420 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 5420 features, 305 samples
Platform type:
Overall survival time-to-event summary (in years):
Call: survfit(formula = Surv(time, cens) ~ -1)

   65 observations deleted due to missingness
      n  events  median 0.95LCL 0.95UCL
 240.00   51.00    7.73    6.82      NA

---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
      305 character character

sample_type:
tumor
  305

er:
negative positive     NA's
      99      154       52

pgr:
negative positive     NA's
     126      109       70

her2:
```

```
negative positive     NA's 
     203       58       44 

tumor_size: 
   1  1.5    3    6 NA's 
  60    1  129   43   72 

N: 
   0    1 NA's 
 126  135   44 

age_at_initial_pathologic_diagnosis: 
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's 
  24.00   46.00   55.00   56.73   68.00   89.00      59 

grade: 
   1    2    3 NA's 
  25   80  138   62 

days_to_tumor_recurrence: 
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's 
   30.0   450.0   750.0   954.3  1380.0  3540.0      64 

recurrence_status: 
norecurrence   recurrence         NA's 
         170           70           65 

days_to_death: 
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's 
     30     540     885    1104    1590    5190      65 

vital_status: 
deceased   living     NA's 
      51      189       65 

batch: 
UNC4 
 305 

uncurated_author_metadata: 
   Length     Class      Mode 
      305 character character 

duplicates: 
 KOO.KOO_KF_105 KOO.KOO_T01_514           NA's 
              1               1            303 
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=gse18229

UNT *UNT*

Description

ExpressionSet for the UNT Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
  Laboratory:
 Contact information: http://www.ncbi.nlm.nih.gov/pubmed/?term=16478745; http://www.ncbi.nlm.nih.
  Title:
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=gse2990
  PMIDs: 16478745, 17401012
  No abstract available.
  notes:
   summary:
      A gene expression grading index (GGI) was developed. The GGI reclassified
grade 2 patients into two groups with low and high risks of recurrence.
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... 244889_at (36084 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 36084 features, 133 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
      133 character character

alt_sample_name:
   Length     Class      Mode
      133 character character
```

```
sample_type:
tumor
  133

er:
negative positive     NA's
      40       86        7

pgr:
negative positive     NA's
       6       56       71

tumor_size:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
  0.000   1.200   1.900   1.892   2.300   6.000

N:
  0
133

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
  24.00   44.00   53.00   51.79   60.00   73.00

grade:
   1    2    3 NA's
  32   51   29   21

dmfs_days:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
     61    1338    2809    2724    4078    5305

dmfs_status:
norecurrence   recurrence         NA's
          97           28            8

days_to_tumor_recurrence:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
     61    1338    2675    2687    3912    5305

recurrence_status:
norecurrence   recurrence         NA's
          76           49            8

treatment:
untreated
      133

batch:
 KIU OXFU
  64   69
```

```
uncurated_author_metadata:
   Length     Class      Mode
      133 character character
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=gse2990

UPP *UPP*

Description

ExpressionSet for the UPP Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
  Laboratory:
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/?term=16141321
  Title:
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=gse3494
  PMIDs: 16141321
  No abstract available.
  notes:
   summary:
      A 32-gene expression signature of p53 was identified that differentiates p
-53 mutant and wild-type tumors. The signature is more effective than sequ
ence-based assessments of p53 in predicting prognosis and therapeutic resp
onse.
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... 244889_at (36178 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 36178 features, 251 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
      251 character character

alt_sample_name:
   Length     Class      Mode
      251 character character

sample_type:
tumor
  251

er:
negative positive     NA's
      34      213        4

pgr:
negative positive
      61      190

tumor_size:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
  0.200   1.500   2.000   2.243   2.562  13.000

N:
   0    1 NA's
 158   84    9

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
  28.00   52.00   64.00   62.11   72.00   93.00

grade:
   1    2    3 NA's
  67  128   54    2

days_to_tumor_recurrence:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
     30    1870    3711    3007    3985    4654      17

recurrence_status:
norecurrence   recurrence         NA's
         181           55           15

treatment:
```

```
hormonotherapy      untreated           NA's
            80            142             29

batch:
UPPT UPPU
  80  171

uncurated_author_metadata:
   Length     Class      Mode
      251 character character
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=gse3494

`VDX` *VDX*

Description

ExpressionSet for the VDX Dataset

Format

```
experimentData(eset):
Experiment data
  Experimenter name:
  Laboratory:
  Contact information: http://www.ncbi.nlm.nih.gov/pubmed/?term=15721472; http://www.ncbi.nlm.nih
  Title:
  URL: http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=gse2034; http://www.ncbi.nlm.nih.gov/geo
  PMIDs: 15721472, 17420468
  No abstract available.
  notes:
   summary:
      15721472: A gene signature was identified that can accurately predict dist
ant metastases in node-negative cases. 17420468: Tumors with a lung metast
atic gene signature were shown to be larger.
   mapping.method:
      maxRowVariance
   mapping.group:
      EntrezGene.ID
   preprocessing:
      As published by original author.

featureData(eset):
An object of class 'AnnotatedDataFrame'
  featureNames: 1007_s_at 1053_at ... AFFX-HUMISGF3A/M97935_MB_at
    (21169 total)
  varLabels: probeset gene EntrezGene.ID best_probe
  varMetadata: labelDescription
```

Details

```
assayData: 21169 features, 344 samples
Platform type:
---------------------------
Available sample meta-data:
---------------------------

sample_name:
   Length     Class      Mode
      344 character character

alt_sample_name:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
    3.0   122.8   605.5   575.7   836.5  2038.0

sample_type:
tumor
  344

er:
negative positive
     135      209

tumor_size:
   1    2    3    4 NA's
 146  132    5    3   58

N:
  0
344

age_at_initial_pathologic_diagnosis:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
  26.00   44.00   52.00   53.88   63.00   83.00      58

grade:
   1    2    3 NA's
   7   42  148  147

dmfs_days:
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
     61    1254    2616    2377    3285    5201

dmfs_status:
norecurrence   recurrence
         226          118

treatment:
untreated
      344

batch:
```

```
 VDX VDXN 
 286   58 

uncurated_author_metadata:
   Length     Class      Mode 
      344 character character 
```

Source

http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=gse2034; http://www.ncbi.nlm.nih.gov/geo/query/acc.cgi?acc=gse5

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