Package ‘acnr’

February 19, 2015

Type Package

Title Annotated Copy-Number Regions

Version 0.2.4

Date 2014-10-27

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Description This data package contains SNP array data from different types of copy-number regions. These regions were identified manually by the authors of the package and may be used to generate realistic data sets with known truth.

License LGPL (>= 2.1)

Depends R (>= 2.10), R.utils, xtable

Repository CRAN

Repository/R-Forge/Project jointseg

Repository/R-Forge/Revision 142

Repository/R-Forge/DateTimeStamp 2014-11-17 15:27:15

Date/Publication 2014-11-19 11:43:31

NeedsCompilation no

R topics documented:

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loadCnRegionData

Package: acnr
Type: Package
Title: Annotated Copy-Number Regions
Version: 0.2.2
Date: 2014-09-08
Author: Morgane Pierre-Jean and Pierre Neuvial
Maintainer: Morgane Pierre-Jean <morgane.pierrejean@genopole.cnrs.fr>
License: LGPL (>= 2.1)
Depends: R (>= 2.10), R.utils
Suggests: RUnit, BiocGenerics
biocViews: ExperimentData

loadCnRegionData

Description
Load real, annotated copy number data

Usage
loadCnRegionData(dataSet = c("GSE29172", "GSE11976"), tumorFraction = 1)

Arguments
- dataSet: microarray dataSet from which the data was generated.
- tumorFraction: proportion of tumor cells in the "tumor" sample. Should be in .3, .5, .7, 1 if dataSet="GSE29172", and in .14,.34,.50,.79,1 when dataSet="GSE11976".

Description
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loadCnRegionData

Details

This function is a wrapper to load real genotyping array data taken from dilution series from the Affymetrix GenomeWideSNP_6 chip type (Rasmussen et al, 2011) or from the Illumina HumanCNV370v1 chip type (Staaf et al, 2008)

Value

a data.frame containing copy number data for different types of copy number regions. Columns:

- **c** Total copy number
- **b** Allele B fraction (a.k.a. BAF)
- **region** a character value, annotation label for the region. Preferably encoded as "(c1,c2)", where C1 denotes the minor copy number and C2 denotes the major copy number. For example,

  - (1,1) Normal
  - (0,1) Hemizygous deletion
  - (0,0) Homozygous deletion
  - (1,2) Single copy gain
  - (0,2) Copy-neutral LOH
  - (2,2) Balanced two-copy gain
  - (1,3) Unbalanced two-copy gain
  - (0,3) Single-copy gain with LOH

- **muN** the (germline) genotype of SNPs. By definition, rows with missing genotypes are interpreted as non-polymorphic loci (a.k.a. copy number probes).

Author(s)

Morgane Pierre-Jean and Pierre Neuvial

References


Examples

```r
affyDat <- loadCnRegionData(dataset="gseR917R", tumorfraction=1)
str(affyDat)

illuDat <- loadCnRegionData(dataset="GSE11976", tumorfraction=.79)
str(illuDat)
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