

Package ‘cheung2010’

March 25, 2013

Title resources for genetics of gene expression based on Cheung et al 2010

Version 0.0.26

Author Vince Carey <stvjc@channing.harvard.edu>

Description Data resources related to the PLoS Biology paper Polymorphic Cis- and Trans-Regulation of Human Gene Expression, including small-footprint smlSet support for 147 hgfocus arrays and corresponding HapMap genotypes at 1.3 million SNP; 0.0.22+ includes cheung_eset... from Leek et al RECOUNT myrna output

Depends R (>= 2.13.0), Biobase, GGtools, GenomicRanges, hgfocus.db

Imports AnnotationDbi

Suggests SNPlocs.Hsapiens.dbSNP.20100427,SNPlocs.Hsapiens.dbSNP.20101109,

Enhances parallel

Maintainer Vince Carey <stvjc@channing.harvard.edu>

License Artistic 2.0

LazyLoad yes

biocViews GeneticVariability, RNAseqData

R topics documented:

cheung2010-package	2
cheung2010locs	2
Index	5

Description

cheung2010locs gives locations for HapMap phase 3 SNPs for CEPH CEU

Usage

```
data(cheung2010locs)
```

Format

The format is:

```
Formal class 'GRangesList' [package "GenomicRanges"] with 5 slots
..@ partitioning :Formal class 'PartitioningByEnd' [package "IRanges"] with 5 slots
.. ..@ end : int [1:22] 112259 226087 320873 406401 493642 585295 660727 735268 798907
871895 ...
.. ..@ NAMES : chr [1:22] "chr1" "chr2" "chr3" "chr4" ...
.. ..@ elementType : chr "integer"
.. ..@ elementMetadata: NULL
.. ..@ metadata : list()
..@ unlistData :Formal class 'GRanges' [package "GenomicRanges"] with 6 slots
.. ..@ seqnames :Formal class 'Rle' [package "IRanges"] with 4 slots
.. .. ..@ values : Factor w/ 22 levels "chr1","chr2",...: 1 2 3 4 5 6 7 8 9 10 ...
.. .. ..@ lengths : int [1:22] 112259 113828 94786 85528 87241 91653 75432 74541 63639
72988 ...
.. .. ..@ elementMetadata: NULL
.. .. ..@ metadata : list()
.. ..@ ranges :Formal class 'IRanges' [package "IRanges"] with 6 slots
.. .. ..@ start : int [1:1365825] 554340 557616 711153 742429 742584 743268 744045 750775
751010 751595 ...
.. .. ..@ width : int [1:1365825] 1 1 1 1 1 1 1 1 1 1 ...
.. .. ..@ NAMES : chr [1:1365825] "rs6650104" "rs11510103" "rs12565286" "rs3094315" ...
.. .. ..@ elementType : chr "integer"
.. .. ..@ elementMetadata: NULL
.. .. ..@ metadata : list()
.. ..@ strand :Formal class 'Rle' [package "IRanges"] with 4 slots
.. .. ..@ values : Factor w/ 3 levels "+","-","*": 1
.. .. ..@ lengths : int 1365825
.. .. ..@ elementMetadata: NULL
.. .. ..@ metadata : list()
.. ..@ elementMetadata:Formal class 'DataFrame' [package "IRanges"] with 6 slots
.. .. ..@ rownames : NULL
.. .. ..@ nrows : int 1365825
.. .. ..@ listData :List of 1
.. .. .. ..$ assignment: Factor w/ 7 levels ".","A/C","A/G",...: 3 3 5 3 3 2 3 6 6 ...
.. .. ..@ elementType : chr "ANY"
.. .. ..@ elementMetadata: NULL
.. .. ..@ metadata : list()
.. ..@ seqinfo :Formal class 'Seqinfo' [package "GenomicRanges"] with 3 slots
.. .. ..@ seqnames : chr [1:22] "chr1" "chr2" "chr3" "chr4" ...
.. .. ..@ seqlengths : int [1:22] NA NA NA NA NA NA NA NA NA NA ...
.. .. ..@ is_circular: logi [1:22] NA NA NA NA NA NA ...
.. ..@ metadata : list()
..@ elementType : chr "GRanges"
```

```
..@ elementMetadata:Formal class 'DataFrame' [package "IRanges"] with 6 slots
.. ..@ rownames : NULL
.. ..@ nrows : int 22
.. ..@ listData : Named list()
.. ..@ elementType : chr "ANY"
.. ..@ elementMetadata: NULL
.. ..@ metadata : list()
..@ metadata : list()
```

Details

obtained as the 'support' elements after [read.HapMap.data](#) was run on the files noted below.

Source

for example,

http://hapmap.ncbi.nlm.nih.gov/downloads/genotypes/hapmap3_r3/hapmap_format/polymorphic/genotypes_chr17_CEU_phase3.3_nr.b36_fwd.txt.gz

Examples

```
data(cheung2010locs)
names(cheung2010locs)
cheung2010locs[[1]][1:3]
```

Index

*Topic **datasets**

cheung2010locs, [2](#)

*Topic **package**

cheung2010-package, [2](#)

cheung2010 (cheung2010-package), [2](#)

cheung2010-package, [2](#)

cheung2010locs, [2](#)

cheung_eset (cheung2010-package), [2](#)

cheung_eset_notrunc
(cheung2010-package), [2](#)

ex (cheung2010-package), [2](#)

read.HapMap.data, [4](#)