Package ‘CoSIAdata’

April 4, 2024

Title  VST normalized RNA-Sequencing data with annotations for multiple species samples from Bgee

Description  Variance Stabilized Transformation of Read Counts derived from Bgee RNA-Seq Expression Data. Expression Data includes annotations and is across 6 species (Homo sapiens, Mus musculus, Rattus norvegicus, Danio rerio, Drosophila melanogaster, and Caenorhabditis elegans) and across more than 132 tissues. The data is represented as a RData files and is available in ExperimentHub.

Version  1.2.0

biocViews  ExperimentHub, RNASeqData, ExperimentData, PackageTypeData, OrganismData, Tissue, Caenorhabditis_elegans_Data, Danio_rerio_Data, Drosophila_melanogaster_Data, Homo_sapiens_Data, Mus_musculus_Data, Rattus_norvegicus_Data, SequencingData, ExpressionData

Depends  R (>= 4.3.0), ExperimentHub (>= 2.6.0),

Suggests  BiocStyle (>= 2.26.0), utils (>= 4.3.0), AnnotationHub (>= 3.7.3), knitr (>= 1.42)

Encoding  UTF-8

License  MIT + file LICENSE

BugReports  https://github.com/lasseignelab/CoSIAdata/issues

VignetteBuilder  knitr

NeedsCompilation  no

RoxygenNote  7.2.3

git_url  https://git.bioconductor.org/packages/CoSIAdata

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.onLoad

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.onLoad .onLoad Function for Resource Name

Description

Resource Name Function

Usage

.onLoad(libname, pkgname)

Arguments

libname The name of the Library.
pkgname The name of the Package.

Value

a set of functions specific to each resource species

References

Morgan M, Shepherd L (2022). ExperimentHub: Client to access ExperimentHub resources. R package version 2.6.0.

Examples

CoSIAdata::Danio_rerio()
**CoSIAdataset**

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**CoSIAdataset**  
_VST normalized RNA-Sequencing data with annotations for multiple species samples from Bgee_

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**Description**

CoSIAdataset includes Variance Stabilized Transformation of Read Counts from Bgee RNA-Seq Expression Data across six species (Homo sapiens, Mus musculus, Rattus norvegicus, Danio rerio, Drosophila melanogaster, and Caenorhabditis elegans) and more than 132 tissues. Each species has its own independent dataframe with its unique set of tissue and gene specific expression data.

CoSIAdataset is meant to be integrated into the CoSIA Package, a visualization tool for cross species comparison of expression metrics. However, it can be used to conduct independent species, tissue, and gene-specific expression analysis.

Researchers might find this data useful as it provides Variance Stabilized Transformation of read counts to compare RNA-Seq expression profiles.

**Format**

Multiple dataframes

**Author(s)**

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**See Also**

Useful links:


**Examples**

```r
library(ExperimentHub)
eh <- ExperimentHub()
query(eh, "CoSIAdataset")
eh["EH7863"]
```
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