Package ‘CoSIAdata’

April 9, 2026

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 1.11.0

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 7.3.3

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

git_branch devel

git_last_commit 1933a6f

git_last_commit_date 2025-10-29

Repository Bioconductor 3.23

Date/Publication 2026-04-09

Author Anisha Haldar [aut] (ORCID: <https://orcid.org/0000-0002-1395-9793>),
Vishal H. Oza [aut] (ORCID: <https://orcid.org/0000-0001-6990-0267>),
Amanda D. Clark [cre, aut] (ORCID:
<https://orcid.org/0000-0002-1186-3114>),
Nathaniel S. DeVoss [aut] (ORCID:
<https://orcid.org/0000-0003-0465-2770>),
Brittany N. Lasseigne [aut] (ORCID:
<https://orcid.org/0000-0002-1642-8904>)

Maintainer Amanda D. Clark <clarkaduab@gmail.com>

Contents

.onLoad 2
CoSIAdata 3

Index **4**

`.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()
```

`CoSIAdata` *CoSIAdata: VST normalized RNA-Sequencing data with annotations for multiple species samples from Bgee*

Description

CoSIAdata includes Variance Stabilized Transformation of Read Counts from Bgee RNA-Seq Expression Data across six species (Homo sapiens, Mus musculus, Rattus norvegicius,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.

CoSIAdata 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)

Maintainer: Amanda D. Clark `<amanda@freshairfamily.org>` (ORCID)

Authors:

- Anisha Haldar (ORCID)
- Vishal H. Oza (ORCID)
- Nathaniel S. DeVoss (ORCID)
- Brittany N. Lasseigne (ORCID)

See Also

Useful links:

- Report bugs at `https://github.com/lasseignelab/CoSIAdata/issues`

Examples

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

Index

∗ **internal**
    `CoSIAdata`, 3
`.onLoad`, 2
`_PACKAGE` *(*`CoSIAdata`*)*, 3

`Caenorhabditis_elegans` *(*`.onLoad`*)*, 2
`CoSIAdata`, 3

`Danio_rerio` *(*`.onLoad`*)*, 2
`Drosophila_melanogaster` *(*`.onLoad`*)*, 2

`Homo_sapiens` *(*`.onLoad`*)*, 2

`Mus_musculus` *(*`.onLoad`*)*, 2

`Rattus_norvegicus` *(*`.onLoad`*)*, 2