Package ‘msigdb’

October 13, 2022

Type Package

Title MSigDB Gene Sets for Multiple Organisms in a Tidy Data Format

Version 7.5.1

Description Provides the ‘Molecular Signatures Database’ (MSigDB) gene sets typically used with the ‘Gene Set Enrichment Analysis’ (GSEA) software (Subramanian et al. 2005 <doi:10.1073/pnas.0506580102>, Liberzon et al. 2015 <doi:10.1016/j.cels.2015.12.004>) in a standard R data frame with key-value pairs. The package includes the human genes as listed in MSigDB as well as the corresponding symbols and IDs for frequently studied model organisms such as mouse, rat, pig, fly, and yeast.

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URL https://igordot.github.io/msigdb/

BugReports https://github.com/igordot/msigdb/issues

Depends R (>= 3.4)

Imports babelgene, dplyr (>= 0.7.0), magrittr, rlang, tibble, tidyselect

Suggests knitr, rmarkdown, testthat

VignetteBuilder knitr

Encoding UTF-8

RoxygenNote 7.1.2

NeedsCompilation no

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Repository CRAN

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msigdb Retrieve the gene sets data frame

Description

Retrieve a data frame of gene sets and their member genes. The available species and collections can be checked with msigdb_species() and msigdb_collections().

Usage

msigdb(species = "Homo sapiens", category = NULL, subcategory = NULL)

Arguments

species Species name, such as Homo sapiens or Mus musculus.
category MSigDB collection abbreviation, such as H or C1.
subcategory MSigDB sub-collection abbreviation, such as CGP or BP.

Value

A data frame of gene sets with one gene per row.

References

https://www.gsea-msigdb.org/gsea/msigdb/collections.jsp

Examples

# get all human gene sets
msigdb(species = "Homo sapiens")

# get mouse C2 (curated) CGP (chemical and genetic perturbations) gene sets
msigdb(species = "Mus musculus", category = "C2", subcategory = "CGP")
msigdbr_collections

List the collections available in the msigdbr package

Description
List the collections available in the msigdbr package

Usage
msigdbr_collections()

Value
A data frame of the available collections.

Examples
msigdbr_collections()

msigdbr_show_species

List the species available in the msigdbr package

Description
This function is being deprecated and replaced by msigdbr_species().

Usage
msigdbr_show_species()

Value
A vector of possible species.
List the species available in the msigdb package

Description
List the species available in the msigdb package

Usage
msigdb_species()

Value
A data frame of the available species.

Examples
msigdb_species()
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