

Package ‘scanMiRData’

April 6, 2022

Type Package

Title miRNA Affinity models for the scanMiR package

Version 1.0.0

Depends R (>= 4.0)

Date 2021-04-19

Imports scanMiR, utils

Suggests knitr, rmarkdown, BiocStyle

Description This package contains companion data to the scanMiR package. It contains ‘KdModel’ (miRNA 12-mer binding affinity models) collections corresponding to all human, mouse and rat mirbase miRNAs. See the scanMiR package for details.

BiocType ExperimentData

License GPL-3

VignetteBuilder knitr

RoxygenNote 7.1.1

biocViews miRNAData, ExperimentData, Homo_sapiens_Data,
Mus_musculus_Data, Rattus_norvegicus_Data

git_url <https://git.bioconductor.org/packages/scanMiRData>

git_branch RELEASE_3_14

git_last_commit 7a9f8cf

git_last_commit_date 2021-10-26

Date/Publication 2022-04-06

Author Pierre-Luc Germain [aut] (<<https://orcid.org/0000-0003-3418-4218>>),
Michael Soutschek [aut],
Fridolin Gross [cre, aut]

Maintainer Fridolin Gross <fridolin.gross@hest.ethz.ch>

R topics documented:

getKdModels	2
KdModels-hsa	3
KdModels-mmu	3
KdModels-rno	3
Index	4

getKdModels	<i>getKdModels</i>
-------------	--------------------

Description

Returns a collection of miRNA KdModels for the requested species. *Note that by default, low-confidence miRNAs are not returned* (see ‘categories’).

Usage

```
getKdModels(species = c("hsa", "mmu", "rno"), categories = NULL)
```

Arguments

- species Either "hsa" (human), "mmu" (mouse) or "rno" (rat)
- categories The categories of miRNAs to return. Any combination of "Low-confidence", "Poorly conserved", "Conserved across mammals", "Conserved across vertebrates". If NULL (default), all categories are returned. miRNAs with NA as conservation are not returned unless ‘categories==NULL’.

Value

An object of class `KdModellist`

Examples

```
mods <- getKdModels("rno")
summary(mods)
```

KdModels-hsa

KdModelList for human miRNAs

Description

A list of binding affinity models ([KdModel](#)) for human ('hsa'), mouse ('mmu'), or rat ('rno') miRbase 21.1 miRNAs. These represent the miRNA 12-mer binding affinities predicted using the CNN from McGeary, Lin et al. (2019).

Value

a [KdModelList](#) list.

KdModels-mmu

KdModelList for mouse miRNAs

Description

A list of binding affinity models ([KdModel](#)) for mouse miRbase 21.1 miRNAs. These represent the miRNA 12-mer binding affinities predicted using the CNN from McGeary, Lin et al. (2019).

Value

a [KdModelList](#) list.

KdModels-rno

KdModelList for rat miRNAs

Description

A list of binding affinity models ([KdModel](#)) for rat miRbase 21.1 miRNAs. These represent the miRNA 12-mer binding affinities predicted using the CNN from McGeary, Lin et al. (2019).

Value

a [KdModelList](#) list.

Index

`getKdModels`, [2](#)

`hsa (KdModels-hsa)`, [3](#)

`KdModel`, [3](#)

`KdModelList`, [2](#), [3](#)

`KdModels-hsa`, [3](#)

`KdModels-hsa, (KdModels-hsa)`, [3](#)

`KdModels-mmu`, [3](#)

`KdModels-mmu, (KdModels-mmu)`, [3](#)

`KdModels-rno`, [3](#)

`KdModels-rno, (KdModels-rno)`, [3](#)

`mmu (KdModels-mmu)`, [3](#)

`rno (KdModels-rno)`, [3](#)