

Package ‘scanMiRData’

November 14, 2024

Type Package

Title miRNA Affinity models for the scanMiR package

Version 1.12.0

Depends R (>= 4.0)

Date 2023-07-03

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_20

git_last_commit c1f652d

git_last_commit_date 2024-10-29

Repository Bioconductor 3.20

Date/Publication 2024-11-14

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

Maintainer Pierre-Luc Germain <pierre-luc.germain@hest.ethz.ch>

Contents

getKdModels	2
KdModels-hsa	2
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	<i>KdModelList for human miRNAs</i>
--------------	-------------------------------------

Description

A list of binding affinity models ([KdModel](#)) for human ('hsa'), mouse ('mmu'), or rat ('rno') miR-base 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 \(KdModels-hsa\)](#), 2

[KdModel](#), 2, 3

[KdModellist](#), 2, 3

[KdModels-hsa](#), 2

[KdModels-hsa \(KdModels-hsa\)](#), 2

[KdModels-mmu](#), 3

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

[KdModels-rno](#), 3

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

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

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