

Package ‘scanMiRData’

March 13, 2025

Type Package

Title miRNA Affinity models for the scanMiR package

Version 1.13.0

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 devel

git_last_commit 6f31480

git_last_commit_date 2024-10-29

Repository Bioconductor 3.21

Date/Publication 2025-03-13

Author Pierre-Luc Germain [cre, aut] (ORCID:
<<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	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	<i>KdModelList for human miRNAs</i>
--------------	-------------------------------------

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	<i>KdModelList for mouse miRNAs</i>
--------------	-------------------------------------

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	<i>KdModelList for rat miRNAs</i>
--------------	-----------------------------------

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](#)