

# Package ‘scanMiRData’

July 2, 2024

**Type** Package

**Title** miRNA Affinity models for the scanMiR package

**Version** 1.10.0

**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\_19

**git\_last\_commit** b50b428

**git\_last\_commit\_date** 2024-04-30

**Repository** Bioconductor 3.19

**Date/Publication** 2024-07-02

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

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## 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)
```

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|              |                                     |
|--------------|-------------------------------------|
| KdModels-hsa | <i>KdModelList for human miRNAs</i> |
|--------------|-------------------------------------|

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**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.

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|              |                                     |
|--------------|-------------------------------------|
| KdModels-mmu | <i>KdModelList for mouse miRNAs</i> |
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**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.

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|              |                                   |
|--------------|-----------------------------------|
| KdModels-rno | <i>KdModelList for rat miRNAs</i> |
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**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.

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