LowMACAAnnotation

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**getLowMACAAnnotationData**

*Retrieve Data from LowMACAAnnotation Package*

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**Description**

Functions to retrieve protein level, Pfam level and aliases data from LowMACAAnnotation Package.

**Usage**

```r
## Retrieve the dataset containing protein level information
getMyUni()

## Retrieve the dataset containing Pfam level information
getMyPfam()

## Retrieve the dataset containing Gene Symbols aliases
getMyAlias()
```

**Value**

All the functions return dataframes

**See Also**

`myUni` `myPfam` `myAlias`

**Examples**

```r
myUni <- getMyUni()
myPfam <- getMyPfam()
myAlias <- getMyAlias()
```
myAlias  
*Gene Symbol aliases for LowMACA package*

**Description**
A simple parsing of the HGNC database to map aliases and previous symbols to correct official Gene Symbols

**Usage**
data("myAlias")

**Format**
A data frame with the following 2 variables.

- **Alias**  a character vector representing all the possible aliases and previous symbols for official Gene Symbols
- **Official_Gene_Symbol**  a character vector representing the approved and official Gene Symbol for HGNC database
- **Locus_Group**  a character vector representing all the possible locus groups in HGNC database, like protein coding, RNA, pseudogene etc.
- **Locus_Type**  a character vector representing all the possible locus types in HGNC database. It is a specification of locus group
- **MappedByLowMACA**  a character vector of yes and no if the gene is included in myUni.RData

**Source**
HGNC

**Examples**
```r
#Load myAlias and show its structure
myAlias <- getMyAlias()
str(myAlias)
```

myPfam  
*Pfam-A for LowMACA package*

**Description**
This dataset comprises all the Pfam-A entries mapped for LowMACA

**Usage**
data("myPfam")
Format

A data frame with the following 11 variables.

- **Entry** a character vector of Uniprot entries
- **Envelope_Start** a numeric vector of starts of the pfam domain relative to the reference protein
- **Envelope_End** a numeric vector of ends of the pfam domain relative to the reference protein
- **Pfam_ID** a character vector of Pfam IDs in the form of PF#### supported by LowMACA
- **Pfam_Name** a character vector of full Pfam domain names
- **Type** a character vector. One of the following: "Domain" "Family" "Repeat" or "Motif"
- **Clan_ID** a numeric vector of Clan IDs, a sort of families of Pfam domains
- **Entrez** a numeric vector of Entrez IDs
- **UNIPROT** a character vector of Uniprot entries in format "name_HUMAN"
- **Gene_Symbol** a character vector of official Gene Symbols
- **Pfam_Fasta** a character vector of amino acid sequences of corresponding Pfam

Details

This is the result of a merge between Pfam-A, Uniprot, HGNC databases

Source

Pfam website

Examples

```r
#Load and show contents of myPfam
data(myPfam)
str(myPfam)
```

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**myUni**

*Uniprot database for LowMACA*

Description

This dataset comprises all the Uniprot entries mapped for LowMACA

Usage

```r
data("myUni")
```

Format

A data frame with 9 variables.

- **Gene_Symbol** a character vector of official Gene Symbols
- **Entrez** a numeric vector of Entrez IDs
- **UNIPROT** a character vector of Uniprot entries in "name_HUMAN" format
- **Entry** a character vector of Uniprot entries
**Details**

This dataset is a 1 to 1 mapping of genes to their canonical proteins or main proteins

**Source**

Uniprot

**Examples**

```r
#Load dataset and show its structure
data(myUni)
str(myUni)
```
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