

# BioMartGOGeneSets

January 8, 2025

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BioMartGOGeneSets      *Version and source information*

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## Description

Version and source information

## Usage

BioMartGOGeneSets

## Examples

BioMartGOGeneSets

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changeSeqnameStyle      *Change sequence names*

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## Description

Change sequence names

## Usage

```
changeSeqnameStyle(gr, dataset, seqname_style_from, seqname_style_to,  
reformat_from = NULL, reformat_to = NULL)
```

## Arguments

`gr`                      The input regions

`dataset`                A BioMart dataset or a taxon ID. For a proper value, please see [supportedOrganisms](#).

`seqname_style_from`    Value should be in c("Sequence-Name", "GenBank-Accn", "RefSeq-Accn").  
If you are not sure which seqname style is in gr, use [getBioMartGenomeInfo](#)  
to obtain list of examples.

`seqname_style_to`      Value should be in c("Sequence-Name", "GenBank-Accn", "RefSeq-Accn").

reformat\_from A self-defined function to reformat the seqnames. The internal seqname style can be obtained via `getBioMartGenomeInfo(dataset)`. This function converts the internal "from" seqnames to fit the user's input regions.

reformat\_to A self-defined function to reformat the seqnames.

### Details

Please the conversion is not one to one. For those sequences which cannot be corrected mapped to other styles, they are just removed.

### Value

A `GRanges` object.

### Examples

```
## Not run:
gr = getBioMartGenes("giant panda")
changeSeqnameStyle(gr, "giant panda", "Sequence-Name", "GenBank-Accn")

## End(Not run)
```

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getBioMartGOGeneSets *Get GO gene sets*

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### Description

Get GO gene sets

### Usage

```
getBioMartGOGeneSets(dataset, ontology = "BP",
  as_table = FALSE, gene_id_type = "ensembl_gene")
```

### Arguments

dataset A BioMart dataset or a taxon ID. For a proper value, please see [supportedOrganisms](#).

ontology The value should be "BP", "CC", or "MF".

as\_table Whether to return the value as a data frame?

gene\_id\_type Since BioMart is from Ensembl database, the default gene ID type is Ensembl gene ID. Depending on different organisms, Entrez ID ("entrez\_gene") or gene symbol ("gene\_symbol") can also be selected as the gene ID type.

### Details

The gene sets are already compiled and are hosted on [https://github.com/jokergoo/BioMartGOGeneSets\\_data](https://github.com/jokergoo/BioMartGOGeneSets_data), This function just simply retrieves data from there.

### Value

A list of gene IDs or a data frame.

## Examples

```
lt = getBioMartGOGeneSets("hsapiens_gene_ensembl")
lt = getBioMartGOGeneSets("hsapiens_gene_ensembl", gene_id_type = "entrez")
tb = getBioMartGOGeneSets("hsapiens_gene_ensembl", as_table = TRUE)
```

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|                 |                               |
|-----------------|-------------------------------|
| getBioMartGenes | <i>Get genes from BioMart</i> |
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## Description

Get genes from BioMart

## Usage

```
getBioMartGenes(dataset, add_chr_prefix = FALSE)
```

## Arguments

**dataset** A BioMart dataset or a taxon ID. For a proper value, please see [supportedOrganisms](#).

**add\_chr\_prefix** Whether to add "chr" prefix to chromosome names? If it is true, it uses `GenomeInfoDb::seqlevelsStyle` = "UCSC" to add the prefix.

## Details

Note `add_chr_prefix` is just a helper argument. You can basically do the same as:

```
gr = getBioMartGenes("hsapiens_gene_ensembl")
seqlevelsStyle(gr) = "UCSC"
```

## Value

A [GRanges](#) object.

## Examples

```
gr = getBioMartGenes("hsapiens_gene_ensembl")
gr
gr = getBioMartGenes("hsapiens_gene_ensembl", add_chr_prefix = TRUE)
gr
```

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`getBioMartGenomeInfo` *Get genome information*

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**Description**

Get genome information

**Usage**

```
getBioMartGenomeInfo(dataset)
```

**Arguments**

`dataset` A BioMart dataset or a taxon ID. For a proper value, please see [supportedOrganisms](#).

**Value**

A list.

**Examples**

```
getBioMartGenomeInfo(9606)
```

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`print.BioMartGOGeneSets_info`  
*Print the BioMartGOGeneSets object*

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**Description**

Print the BioMartGOGeneSets object

**Usage**

```
## S3 method for class 'BioMartGOGeneSets_info'  
print(x, ...)
```

**Arguments**

`x` A BioMartGOGeneSets\_info object.  
`...` Other arguments

**Value**

No value is returned.

**Examples**

```
BioMartGOGeneSets
```

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`supportedOrganisms`     *All supported organisms*

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**Description**

All supported organisms

**Usage**

```
supportedOrganisms(html = TRUE)
```

**Arguments**

`html`             Whether to open the table in the web browser?

**Value**

A data frame of supported organisms.

**Examples**

```
if(interactive()) {  
  supportedOrganisms()  
}
```

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