

# Package ‘lipidmapsR’

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**Type** Package

**Title** Lipid Maps Rest Service

**Version** 1.0.4

**Date** 2022-06-17

**Depends** R (>= 4.2.0)

**Imports** httr (>= 1.3.1), RJSONIO (>= 1.3-0)

**Description** Lipid Maps Rest service. Researchers can access the Lipid Maps Rest service programmatically and conveniently integrate it into the current workflow or packages.

**License** GPL-3

**Encoding** UTF-8

**RoxygenNote** 7.2.0

**NeedsCompilation** no

**Author** Mingzhuo Tian [aut, cre],  
Yaoxiang Li [ctb],  
Amrita Cheema [ctb]

**Maintainer** Mingzhuo Tian <tianmingzhuo@outlook.com>

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compound\_search      *A function for compound search*

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### Description

A function for compound search

### Usage

```
compound_search(  
  input_item = "lm_id",  
  input_value,  
  output_item,  
  output_format = ""  
)
```

### Arguments

input\_item      choose input item from the following options: "lm\_id", "formula", "inchi\_key", "pubchem\_cid", "hmdb\_id"  
input\_value      input the value you want to search  
output\_item      select your output from following options: "all", "classification", "lm\_id", "name", "sys\_name", "synonyms",  
output\_format    select your output format from following options: "json (default)", "text"

### Value

The search results

### Author(s)

Mingzhuo Tian <tianmingzhuo@outlook.com> License: GPL (>= 3)

### Examples

```
# Fetch compound name from LM_ID  
compound_search("lm_id", "LMFA01010001", "name")  
  
# Fetch all compound fields from LM_ID  
compound_search("lm_id", "LMFA01010001", "all")  
  
# Fetch all compound fields as text from LM_ID  
compound_search("lm_id", "LMFA01010001", "all", "txt")  
  
# Fetch compound smiles from PubChem CID  
compound_search("pubchem_cid", "985", "smiles")  
  
# Fetch compound sytematic name from inchi key  
compound_search("inchi_key", "IPCSVZSSVZVIGE-UHFFFAOYSA-N", "sys_name")
```

```
# Fetch compound physicochemical properties from inchi key
compound_search("inchi_key", "IPCSVZSSSVZVIGE-UHFFFAOYSA-N", "physchem")

# Fetch all compound fields from formula (multiple records)
compound_search("formula", "C20H34O", "all")

# Fetch compound classification hierarchy from PubChem CID
compound_search("pubchem_cid", "985", "classification")

# Fetch all compound fields from bulk abbreviation
compound_search("abbrev", "PA(38:0)", "all")

# Fetch all compound fields from chain abbreviation
compound_search("abbrev_chains", "PC(16:0_18:0)", "all")
```

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gene\_search

*A function for Gene search*

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## Description

A function for Gene search

## Usage

```
gene_search(
  input_item = "lmp_id",
  input_value,
  output_item,
  output_format = ""
)
```

## Arguments

`input_item` choose input item from the following options: "lmp\_id", "formula", "inchi\_key", "pubchem\_cid", "hmdb\_id"  
`input_value` input the value you want to search  
`output_item` select your output from following options: "all", "classification", "lmp\_id", "name", "sys\_name", "synonyms",  
`output_format` select your output format from following options: "json (default)", "text"

## Value

The search results

## Author(s)

Mingzhuo Tian <tianmingzhuo@outlook.com> License: GPL (>= 3)

## Examples

```
# Fetch all gene fields from gene symbol
gene_search("gene_symbol", "acaca", "all")

# Fetch gene name from Entrez gene id
gene_search("gene_id", "31", "gene_name")
```

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protein\_search      *A function for Protein search*

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## Description

A function for Protein search

## Usage

```
protein_search(input_item, input_value, output_item, output_format = "")
```

## Arguments

input\_item      choose input item from the following options: "lm\_id", "formula", "inchi\_key", "pubchem\_cid", "hmdb\_id"  
input\_value      input the value you want to search  
output\_item      select your output from following options: "all", "classification", "lm\_id", "name", "sys\_name", "synonyms",  
output\_format    select your output format from following options: "json (default)", "text"

## Value

The search results

## Author(s)

Mingzhuo Tian <tianmingzhuo@outlook.com> License: GPL (>= 3)

## Examples

```
# Fetch all protein fields from UniProt id
protein_search("uniprot_id", "Q13085", "all")
# Fetch all protein fields from Entrez gene id
protein_search("gene_id", "19", "all")
# Fetch mRNA id from protein Refseq id
protein_search("refseq_id", "NP_005493", "mrna_id")
```

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