Welcome to MatrixDB, the Extracellular Matrix Interaction Database

1. Basic search on the home page of MatrixDB website using the search bar

You can search for biomolecules using various identifiers (e.g. biomolecule name, UniProt AC, gene name, ChEBI ID, Complex Portal ID), keywords, authors or publications or IMEX identifiers (at least 3 characters needed).

The results are displayed as follows:

The species (logo), gene names of the biomolecules retrieved in MatrixDB are displayed together with the number of interactions $s$ of each biomolecule. The biomolecules are ranked by decreasing numbers of partners. Ticking the "Human only" box displays human biomolecules only.
The following information on the **publications** retrieved by querying MatrixDB is displayed in a pop up text on mouse over on the yellow star: the title, the PMID identifier and the IMEX identifier where available. The number of interactions reported in the publication is indicated.

**Biomolecule report page**

Clicking on the name of a biomolecule displays the Biomolecule Report page.

**General information**

**Information on binding partners**

**Expression data**

**Quantitative Proteomic data**

**UniProtKB keywords and GO Terms**
Then click on this button to build the list of biomolecules of interest by adding them to cart. The number of biomolecules added to the cart is displayed.

Click on blue network icon on the top right of the Biomolecule Report page and select Build items interactions network.

2 Advanced search

On the home page of MatrixDB click on

Then you can build a list of biomolecules by selecting one of the four following items:

Build biomolecule lists by:

- Biomolecule information
- Keywords & GO terms
- Publications
- Diseases

Two options are available for displaying the results of queries performed with several terms: either displaying the results matching all the terms (by default) or the results matching at least one of the
Each query will produce "Primary hits" and "Secondary hits" defined as follows:

**Direct search of biomolecules**
Primary hit: query matching the identifier or the name of the biomolecule
Secondary hit: query found in other information of the biomolecule

**Search of biomolecules annotated with specific keywords and GO terms**
Primary hits: query matching keywords or GO terms annotating the biomolecule
Secondary hit: query found in the description of keywords or GO terms

**Search of biomolecules reported in publications**
Primary hits: query matching a word of the publication title
Secondary hit: query found in the abstract of the publication

**Search of biomolecules associated with diseases**
Primary hits: query matching OMIM identifier or a disease name
Secondary hit: query found in the description of the disease

For each query the user can restrict the search to human biomolecules and/or to biomolecules involved in at least one interaction.
Several options are available to build interaction networks with the biomolecules retrieved using advanced queries. The user can add to the cart selected biomolecules only, biomolecules listed in the primary hits and/or biomolecules listed in the secondary hits.

Then click on

![Network Building Options]

The network can be edited by:
- Deleting nodes with the Tabular network widget on the left
- Selecting human nodes only or non-human nodes only with the same widget
- Integrating expression or quantitative expression data using Filter network widget on the left
- Changing the colors of nodes with the Palette widget on the left

It is also possible using the menu (top right) to take a snapshot of the network, to export it to Cytoscape, to save it for re-use or to reload it.