MatrixDB

RRID:SCR_001727
Type: Tool

Proper Citation

MatrixDB (RRID:SCR_001727)

Resource Information


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**Description:** Freely available database focused on interactions established by extracellular proteins and polysaccharides, taking into account the multimeric nature of the extracellular proteins (e.g. collagens, laminins and thrombospondins are multimers). MatrixDB is an active member of the International Molecular Exchange (IMEx) consortium and has adopted the PSI-MI standards for annotating and exchanging interaction data. It includes interaction data extracted from the literature by manual curation, and offers access to relevant data involving extracellular proteins provided by the IMEx partner databases through the PSICQUIC webservice, as well as data from the Human Protein Reference Database. The database reports mammalian protein-protein and protein-carbohydrate interactions involving extracellular molecules. Interactions with lipids and cations are also reported. MatrixDB is focused on mammalian interactions, but aims to integrate interaction datasets of model organisms when available. MatrixDB provides direct links to databases recapitulating mutations in genes encoding extracellular proteins, to UniGene and to the Human Protein Atlas that shows expression and localization of proteins in a large variety of normal human tissues and cells. MatrixDB allows researchers to perform customized queries and to build tissue- and disease-specific interaction networks that can be visualized and analyzed with Cytoscape or Medusa. Statistics (2013): 2283 extracellular matrix interactions including 2095 protein-protein and 169 protein-glycosaminoglycan interactions.

**Abbreviations:** MatrixDB

**Synonyms:** Extracellular Matrix Interactions Database, MatrixDB: Extracellular Matrix Interactions Database, Extracellular Matrix Interactions Database

**Resource Type:** service resource, production service resource, data or information
**Defining Citation:** PMID:20852260, PMID:19147664

**Keywords:** extracellular, protein fragment, biomolecule, cation, cleavage, collagen, glycosaminoglycan, human, interaction, laminin, lipid, mammalian, matricryptin, matrikin, matrix, molecule, monomer, multimerization, multimer, polysaccharide, protein, protein-carbohydrate interaction, protein-protein interaction, recognition, thrombospondin, interactome, extracellular protein, protein-polysaccharide interaction, extracellular interaction, molecular interaction, model organism, inorganic, small molecule-protein, small molecule, extracellular matrix protein, protein-glycosaminoglycan interaction, bio.tools, FASEB list

**Funding Agency:** European Union

**Availability:** Free, Public, Acknowledgement requested

**Resource Name:** MatrixDB

**Resource ID:** SCR_001727

**Alternate IDs:** nif-0000-10226, biotools:matrixdb

**Alternate URLs:** https://bio.tools/matrixdb

**Old URLs:** http://matrixdb.ibcp.fr/

**Ratings and Alerts**

No rating or validation information has been found for MatrixDB.

No alerts have been found for MatrixDB.

**Data and Source Information**

**Source:** [SciCrunch Registry](https://scicrunch.org)

**Usage and Citation Metrics**

We found 70 mentions in open access literature.

**Listed below are recent publications.** The full list is available at [RRID](https://rrid.org).


Chaussé AM, et al. (2023) Epithelial cell invasion by salmonella typhimurium induces modulation of genes controlled by aryl hydrocarbon receptor signaling and involved in extracellular matrix biogenesis. Virulence, 14(1), 2158663.


Kotlyar M, et al. (2022) IID 2021: towards context-specific protein interaction analyses by increased coverage, enhanced annotation and enrichment analysis. Nucleic acids research, 50(D1), D640-D647.


