

Resource Summary Report

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UniCarbKB

RRID:SCR_014410

Type: Tool

Proper Citation

UniCarbKB (RRID:SCR_014410)

Resource Information

URL: <https://unicarb-db.expasy.org/>

Proper Citation: UniCarbKB (RRID:SCR_014410)

Description: International effort which has created a glycomics knowledgebase with access to a database of information on the glycan structures of glycoproteins. It serves as and promotes an online information storage and search platform for glycomics and glycobiology research. Open access knowledgebase offers resource supported by querying interfaces, annotation technologies and the adoption of common standards to integrate structural, experimental and functional data.

Resource Type: database, data or information resource

Defining Citation: [DOI:10.1093/nar/gkt1128](https://doi.org/10.1093/nar/gkt1128)

Keywords: knowledgebase, glycomics, glycan structure, glycoprotein, cell line, glycoproteomics knowledge platform, bio.tools

Availability: Free, Freely available

Resource Name: UniCarbKB

Resource ID: SCR_014410

Alternate IDs: biotools:unicarbk

Alternate URLs: <https://bio.tools/unicarbk>

Old URLs: <http://www.unicarbk.org>

Record Creation Time: 20220129T080320+0000

Record Last Update: 20260803T040631+0000

Ratings and Alerts

No rating or validation information has been found for UniCarbKB.

No alerts have been found for UniCarbKB.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 27 mentions in open access literature.

Listed below are recent publications. The full list is available at [PRECISE-TBI](#) .

Zhang W, et al. (2025) GNOme, an ontology for glycan naming and subsumption. Analytical and bioanalytical chemistry, 417(10), 1961.

Lee YR, et al. (2025) Comprehensive Approach for Sequential MALDI-MSI Analysis of Lipids, N-Glycans, and Peptides in Fresh-Frozen Rodent Brain Tissues. Analytical chemistry, 97(2), 1338.

Homan K, et al. (2024) Articular cartilage corefucosylation regulates tissue resilience in osteoarthritis. eLife, 12.

Stear BJ, et al. (2024) Petagraph: A large-scale unifying knowledge graph framework for integrating biomolecular and biomedical data. Scientific data, 11(1), 1338.

Lee YR, et al. (2023) High-Resolution N-Glycan MALDI Mass Spectrometry Imaging of Subchondral Bone Tissue Microarrays in Patients with Knee Osteoarthritis. Analytical chemistry, 95(34), 12640.

Carnielli CM, et al. (2023) Comprehensive Glycoprofiling of Oral Tumors Associates N-Glycosylation With Lymph Node Metastasis and Patient Survival. Molecular & cellular proteomics : MCP, 22(7), 100586.

Trbojević-Akmačević I, et al. (2022) High-Throughput Glycomic Methods. Chemical reviews, 122(20), 15865.

Lee YR, et al. (2022) Mass spectrometry imaging spatially identifies complex-type N-glycans as putative cartilage degradation markers in human knee osteoarthritis tissue. Analytical and bioanalytical chemistry, 414(26), 7597.

Kawahara R, et al. (2021) The Complexity and Dynamics of the Tissue Glycoproteome Associated With Prostate Cancer Progression. Molecular & cellular proteomics : MCP, 20, 100026.

Chiang AWT, et al. (2021) Systems glycobiology for discovering drug targets, biomarkers, and rational designs for glyco-immunotherapy. Journal of biomedical science, 28(1), 50.

Li X, et al. (2020) Databases and Bioinformatic Tools for Glycobiology and Glycoproteomics. *International journal of molecular sciences*, 21(18).

Abbott RC, et al. (2020) Finding the Keys to the CAR: Identifying Novel Target Antigens for T Cell Redirection Immunotherapies. *International journal of molecular sciences*, 21(2).

Zhang H, et al. (2020) On-Tissue Derivatization with Girard's Reagent P Enhances N-Glycan Signals for Formalin-Fixed Paraffin-Embedded Tissue Sections in MALDI Mass Spectrometry Imaging. *Analytical chemistry*, 92(19), 13361.

Scherbinina SI, et al. (2020) Three-Dimensional Structures of Carbohydrates and Where to Find Them. *International journal of molecular sciences*, 21(20).

Homan K, et al. (2019) Alteration of the Total Cellular Glycome during Late Differentiation of Chondrocytes. *International journal of molecular sciences*, 20(14).

Gao C, et al. (2019) Unique Binding Specificities of Proteins toward Isomeric Asparagine-Linked Glycans. *Cell chemical biology*, 26(4), 535.

Huang H, et al. (2018) iPTMnet: an integrated resource for protein post-translational modification network discovery. *Nucleic acids research*, 46(D1), D542.

Bennun SV, et al. (2016) Systems Glycobiology: Integrating Glycogenomics, Glycoproteomics, Glycomics, and Other 'Omics Data Sets to Characterize Cellular Glycosylation Processes. *Journal of molecular biology*, 428(16), 3337.

Campbell MP, et al. (2016) UniCarbKB: New database features for integrating glycan structure abundance, compositional glycoproteomics data, and disease associations. *Biochimica et biophysica acta*, 1860(8), 1669.

Hoffmann M, et al. (2016) Site-specific O-Glycosylation Analysis of Human Blood Plasma Proteins. *Molecular & cellular proteomics : MCP*, 15(2), 624.