Resource Summary Report

Generated by RRID on Apr 17, 2025

GlycoMod

RRID:SCR_001602
Type: Tool

Proper Citation

GlycoMod (RRID:SCR_001602)

Resource Information

URL: http://web.expasy.org/glycomod/

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Description: A tool that can predict the possible oligosaccharide structures that occur on proteins from their experimentally determined masses. This is done by comparing the mass of the glycan to a list of pre-computed masses of glycan compositions. The program can be used with free or derivatised glycans and for glycopeptides where the peptide mass or protein is known. Compositional constraints can be applied to the output. Note: You can use GlycanMass to calculate the mass of an oligosaccharide structure from its oligosaccharide composition.

Abbreviations: GlycoMod

Synonyms: GlycoMod Tool

Resource Type: data analysis service, production service resource, service resource, analysis service resource

Defining Citation: PMID:11680880

Keywords: predict, oligosaccharide structure, protein, mass, oligosaccharide, glycopeptide, glycoprotein, oligosaccharide composition, mass spectrometry, glycosylation, composition, glycan, structure, n-linked oligosaccharide, o-linked oligosaccharide, monosaccharide residue

Funding:

Resource Name: GlycoMod

Resource ID: SCR_001602

Alternate IDs: nlx_153859

Record Creation Time: 20220129T080208+0000

Record Last Update: 20250417T065050+0000

Ratings and Alerts

No rating or validation information has been found for GlycoMod.

No alerts have been found for GlycoMod.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 104 mentions in open access literature.

Listed below are recent publications. The full list is available at RRID.

Cindri? A, et al. (2025) Total cell N-glycosylation is altered during differentiation of induced pluripotent stem cells to neural stem cells and is disturbed by trisomy 21. BBA advances, 7, 100137.

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.

Tokoro Y, et al. (2024) LacdiNAc synthase B4GALNT3 has a unique PA14 domain and suppresses N-glycan capping. The Journal of biological chemistry, 300(7), 107450.

Zhang T, et al. (2024) Comprehensive O-Glycan Analysis by Porous Graphitized Carbon Nanoliquid Chromatography-Mass Spectrometry. Analytical chemistry, 96(22), 8942.

Osada N, et al. (2024) Self-regulation of MGAT4A and MGAT4B activity toward glycoproteins through interaction of lectin domain with their own N-glycans. iScience, 27(11), 111066.

Palomino TV, et al. (2024) In-depth characterization of N-glycosylation and sialic acid content in fetal and adult fibrinogen. Research and practice in thrombosis and haemostasis, 8(8), 102618.

Song W, et al. (2023) Expression of GnT-III decreases chemoresistance via negatively regulating P-glycoprotein expression: Involvement of the TNFR2-NF-?B signaling pathway. The Journal of biological chemistry, 299(4), 103051.

Hsu YP, et al. (2023) Structural remodeling of SARS-CoV-2 spike protein glycans reveals the regulatory roles in receptor-binding affinity. Glycobiology, 33(2), 126.

Butler W, et al. (2023) Rewiring of the N-Glycome with prostate cancer progression and therapy resistance. NPJ precision oncology, 7(1), 22.

Zhang C, et al. (2023) SLC3A2 N-glycosylation and Golgi remodeling regulate SLC7A amino acid exchangers and stress mitigation. The Journal of biological chemistry, 299(12), 105416.

Kawahara R, et al. (2023) Glycoproteome remodeling and organelle-specific N-glycosylation accompany neutrophil granulopoiesis. Proceedings of the National Academy of Sciences of the United States of America, 120(36), e2303867120.

Lu X, et al. (2023) Bioorthogonal Chemical Labeling Probes Targeting Sialic Acid Isomers for N-Glycan MALDI Imaging Mass Spectrometry of Tissues, Cells, and Biofluids. Analytical chemistry, 95(19), 7475.

Mo B, et al. (2023) Tamm-Horsfall protein in humane urine: sex-dependent differences in the excretion and N-glycosylation pattern. Scientific reports, 13(1), 17815.

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.

Ochoa-Rios S, et al. (2022) Imaging Mass Spectrometry Reveals Alterations in N-Linked Glycosylation That Are Associated With Histopathological Changes in Nonalcoholic Steatohepatitis in Mouse and Human. Molecular & cellular proteomics : MCP, 21(5), 100225.

Haji S, et al. (2022) Human Dectin-1 is O-glycosylated and serves as a ligand for C-type lectin receptor CLEC-2. eLife, 11.

Malaker SA, et al. (2022) On-tissue spatially resolved glycoproteomics guided by N-glycan imaging reveal global dysregulation of canine glioma glycoproteomic landscape. Cell chemical biology, 29(1), 30.

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.

Osuka RF, et al. (2022) N-acetylglucosaminyltransferase-V requires a specific noncatalytic luminal domain for its activity toward glycoprotein substrates. The Journal of biological chemistry, 298(3), 101666.

Welbourn S, et al. (2022) A neutralizing antibody target in early HIV-1 infection was recapitulated in rhesus macaques immunized with the transmitted/founder envelope

sequence. PLoS pathogens, 18(5), e1010488.