CARP
RRID:SCR_009021
Type: Tool

Proper Citation

CARP (RRID:SCR_009021)

Resource Information

URL: http://www.glycosciences.de/tools/carp/

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Description: Service that generates Ramachandran-like plots of carbohydrate linkage torsions in pdb-files. The Ramachandran Plot, where backbone torsion angles are plotted against each other, is a frequently used tool to evaluate the quality of a protein 3D structure. For carbohydrate structures, linkage torsions can be evaluated in a similar way. Preferred Phi/Psi values of the torsion angles of glycosidic bonds depend strongly on the types of monosaccharides involved in the linkage, the kind of linkage (1-3, 1-4, etc) as well as the degree of branching of the structure. CARP analyses carbohydrate data given in PDB files using the pdb2linucs algorithm. For each different linkage type a separate plot is generated. The user can choose between two sources for plot background information for comparison: data obtained from PDB provided by GlyTorsion or from GlycoMapsDB. GlycoMapsDB provides calculated conformational maps, which show energetically preferred regions for a specific linkage, while PDB data are based on experimentally solved structures. For seldom occurring linkages, however, PDB data are often rare, so maybe not sufficient background information for comparison will be available from this source.

Abbreviations: carp

Synonyms: carp: CArbohydrate Ramachandran Plot, CArbohydrate Ramachandran Plot

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

Defining Citation: PMID:15608187
**Keywords:** carbohydrate, 3d structure, protein, plot

**Funding Agency:** DFG

**Availability:** Acknowledgement requested

**Resource Name:** CARP

**Resource ID:** SCR_009021

**Alternate IDs:** nlx_152878

### Ratings and Alerts

No rating or validation information has been found for CARP.

No alerts have been found for CARP.

### Data and Source Information

**Source:** SciCrunch Registry

### Usage and Citation Metrics

We found 60 mentions in open access literature.

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


Rodero C, et al. (2021) Linking statistical shape models and simulated function in the healthy


Sanchez-Alonso JL, et al. (2020) Nanoscale regulation of L-type calcium channels differentiates between ischemic and dilated cardiomyopathies. EBioMedicine, 57, 102845.


