

Display Files Download Files Data API

5OY9

VSV G CR3

PDB DOI: <https://doi.org/10.2210/pdb5OY9/pdb>

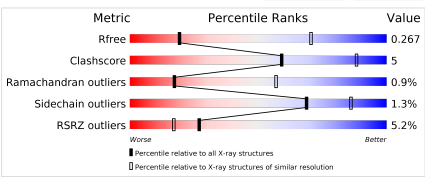
Classification: VIRAL PROTEIN
Organism(s): Vesicular stomatitis Indiana virus strain Mudd-Summers, Homo sapiens
Expression System: Escherichia coli
Mutation(s): No

Deposited: 2017-09-08 Released: 2018-03-21
Deposition Author(s): Albertini, A.A., Belot, L., Legrand, P., Gaudin, Y.
Funding Organization(s): French National Research Agency

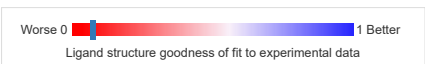
Experimental Data Snapshot

Method: X-RAY DIFFRACTION
Resolution: 3.60 Å
R-Value Free: 0.268
R-Value Work: 0.236
R-Value Observed: 0.237

wwPDB Validation



Ligand Structure Quality Assessment



This is version 2.0 of the entry. See complete history.

Literature

Structural basis for the recognition of LDL-receptor family members by VSV glycoprotein.

Nikolic, J., Belot, L., Raux, H., Legrand, P., Gaudin, Y., A. Albertini, A.
(2018) Nat Commun 9: 1029-1029

PubMed: 29531262
DOI: <https://doi.org/10.1038/s41467-018-03432-4>
Primary Citation of Related Structures:
5OY9, 5OYL

PubMed Abstract:



Biological Assembly 1





3D View: Structure | 1D-3D View | Electron Density | Validation Report | Ligand Interaction

Global Symmetry: Asymmetric - C1
Global Stoichiometry: Hetero 2-mer - A1B1

Find Similar Assemblies

Biological assembly 1 assigned by authors and generated by PISA (software)

Biological Assembly Evidence: isothermal titration calorimetry

Macromolecules

Find similar proteins by: Sequence (by identity cutoff) | 3D Structure

Entity ID: 1

Molecule	Chains	Sequence Length	Organism
Glycoprotein G	A	410	Vesicular stomatitis Indiana virus strain Mudd-Summers

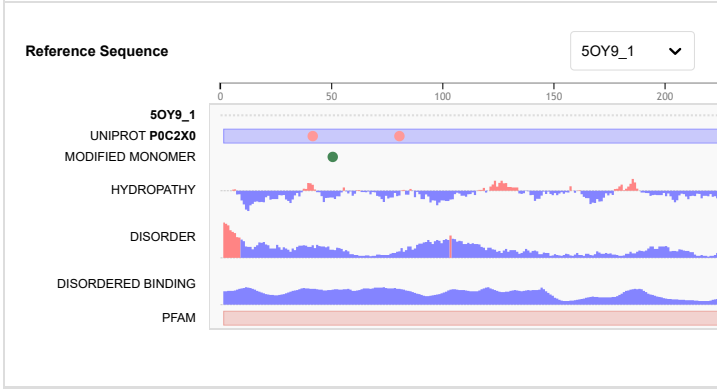
UniProt

Find proteins for [P0C2X0](#) (*Vesicular stomatitis Indiana virus (strain Mudd-Summers)*)
Explore [P0C2X0](#)

Entity Groups

Sequence Clusters [30% Identity](#) [50% Identity](#) [70% Identity](#) [90% Identity](#) [95% Identity](#) 1
UniProt Group [P0C2X0](#)

Protein Feature View



Find similar proteins by: Sequence (by identity cutoff) | 3D Structure

Entity ID: 2

Molecule	Chains	Sequence Length	Organism
Low-density lipoprotein receptor	B [auth D]	37	Homo sapiens

UniProt & NIH Common Fund Data Resources

Find proteins for [P01130](#) (*Homo sapiens*)
Explore [P01130](#)

PHAROS: [P01130](#)

Entity Groups

Sequence Clusters

30% Identity

50% Identity

70% Identity

90% Identity

95% Identity

1

UniProt Group

[P01130](#)

Protein Feature View

Reference Sequence

5OY9_2

5OY9_2

UNIPROT P01130

HYDROPATHY

DISORDER

DISORDERED BINDING

PFAM

T

C

S

Q

D

E

F

R

C

H

D

G

K

C

I

S

R

Q

F

V

T

C

S

Q

D

E

F

R

C

H

D

G

K

C

I

S

R

Q

F

V

Oligosaccharides

Help

Entity ID: 3

Molecule	Chains	Chain Length	2D Diagram	Glycosylation	3D Interactions
2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose	C [auth B]	2		N-Glycosylation	Oligosaccharides Interaction

Glycosylation Resources

GlyTouCan: [G42666HT](#)

GlyCosmos: [G42666HT](#)

GlyGen: [G42666HT](#)

Small Molecules

Ligands 2 Unique

ID	Chains	Name / Formula / InChI Key	2D Diagram	3D Interactions
NAG	D [auth A]	2-acetamido-2-deoxy-beta-D-glucopyranose C ₈ H ₁₅ N O ₆ OVRNDRQMDRJTHS-EMDGEEDCSA-N		Ligand Interaction

Download Instance Coordinates

CA

Download Instance

Coordinates

E [auth A],
F [auth A],
G [auth A],
H [auth D]

CALCIUM ION
Ca
BHPQYMZQTOCNFJ-
UHFFFAOYSA-N

Ca⁺²

Ligand Interaction

Modified Residues

1 Unique

ID	Chains	Type	Formula	2D Diagram	Parent
MLZ	A	L-PEPTIDE LINKING	C ₇ H ₁₆ N ₂ O ₂		LYS

Experimental Data & Validation

Experimental Data

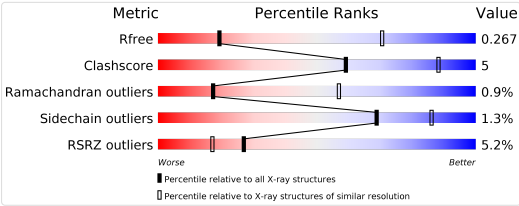
Method: X-RAY DIFFRACTION
Resolution: 3.60 Å
R-Value Free: 0.268
R-Value Work: 0.236
R-Value Observed: 0.237
Space Group: **P 6 2 2**

Unit Cell:	
Length (Å)	Angle (°)
a = 122.35	α = 90
b = 122.35	β = 90
c = 197.81	γ = 120

Software Package:	
Software Name	Purpose
PHENIX	refinement
PDB_EXTRACT	data extraction
XDS	data reduction
XDS	data scaling
MOLREP	phasing

Structure Validation

[View Full Validation Report](#)



Ligand Structure Quality Assessment



Entry History & Funding Information

Deposition Data

Released Date: 2018-03-21
Deposition Author(s): Albertini, A.A., Belot, L., Legrand, P., Gaudin, Y.

Funding Organization	Location	Grant Number
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Revision History (Full details and data files)

- Version 1.0: 2018-03-21**
Type: Initial release
- Version 1.1: 2018-04-18**
Changes: Data collection, Database references
- Version 2.0: 2020-07-29**
Type: Remediation
Reason: Carbohydrate remediation
Changes: Atomic model, Data collection, Derived calculations, Structure summary

French National Research Agency	France	ANR-15-CE11-0020
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