

Rabies virus (strain CVS-11) Glycoprotein G, His Tag (MALS verified)

Catalog # RAG-V55H5



BIOSYSTEMS
Acro

Synonym

Glycoprotein/G Protein (RABV)

Source

Rabies virus (strain CVS-11) Glycoprotein G, His Tag (RAG-V55H5) is expressed from Baculovirus-Insect cells. It contains AA Lys 20 - Lys 458 (Accession # [ADJ29911.1](#)).

Predicted N-terminus: Lys 20

Molecular Characterization

Glycoprotein/G Protein (RABV)(Lys 20 - Lys 458)
ADJ29911.1

Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 53.6 kDa. The protein migrates as 60-65 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Within the expressed region, several mutations were introduced to optimize the protein expression and stability.

The protein is designed as a trimer.

Endotoxin

Less than 1.0 EU per µg by the LAL method / rFC method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in 0.1 M Sodium citrate, pH5.5 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

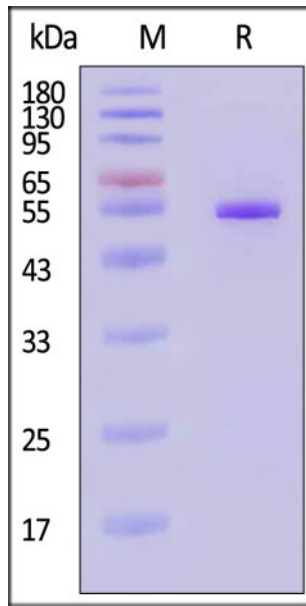
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

ACRO Quality Management System

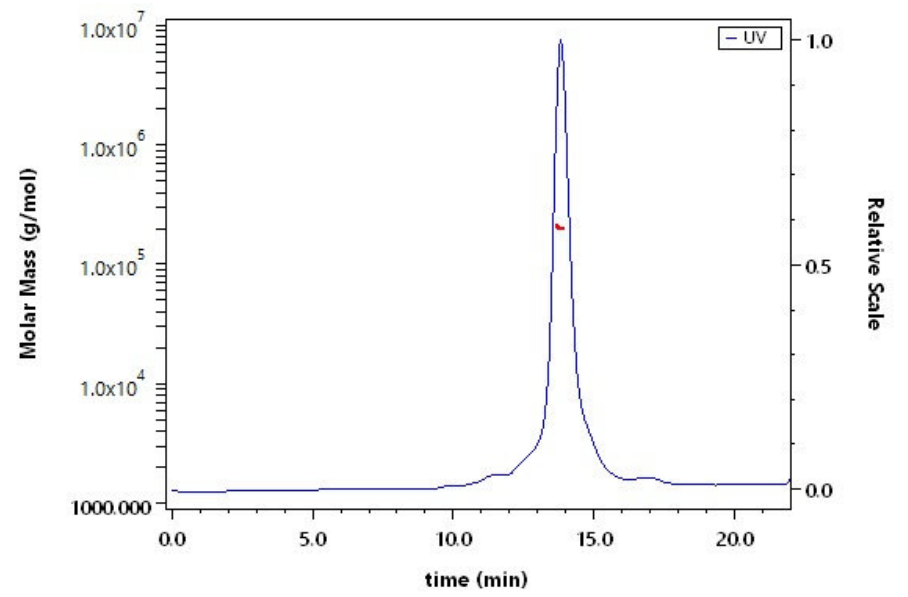
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



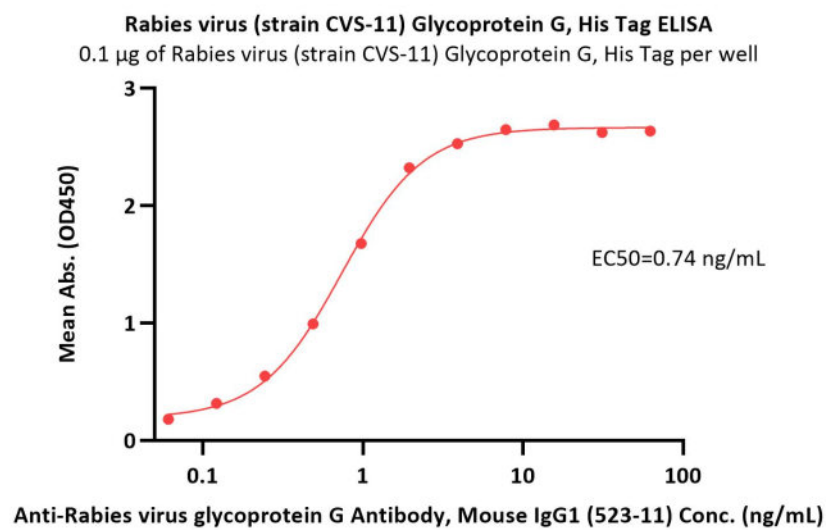
Rabies virus (strain CVS-11) Glycoprotein G, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS



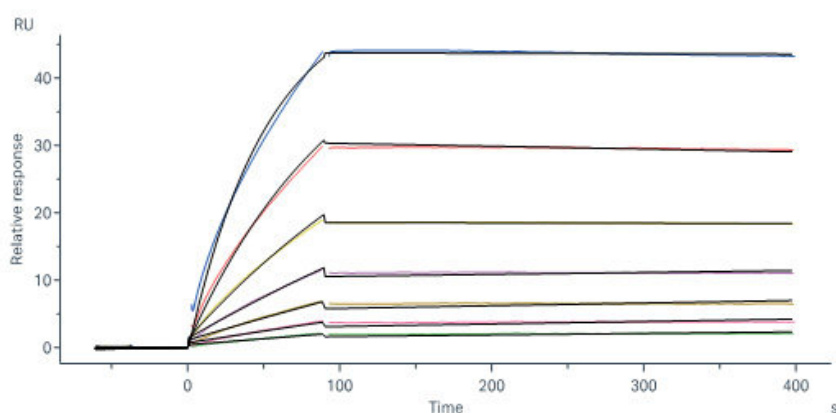
The purity of Rabies virus (strain CVS-11) Glycoprotein G, His Tag (Cat. No. RAG-V55H5) is more than 85% and the molecular weight of this protein is around 165-230 kDa verified by SEC-MALS.

Bioactivity-ELISA



Immobilized Rabies virus (strain CVS-11) Glycoprotein G, His Tag (Cat. No. RAG-V55H5) at 1 µg/mL (100 µL/well) can bind Mouse Glycoprotein G Antibody, Mouse IgG1 (523-11) (Cat. No. RAG-M305) with a linear range of 0.1-2 ng/mL (QC tested).

Bioactivity-SPR



Monoclonal Anti-Glycoprotein G (Lyssavirus rabies) Antibody, Human IgG1 (4A7) (Cat. No. GLN-M645) captured on Protein A Chip can bind Rabies virus Glycoprotein G, His Tag (Cat. No. RAG-V55H5) with an affinity constant of 1.25 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Background

Rabies virus (RABV), scientific name Rabies lyssavirus, is a deadly neurotropic virus that causes rabies in humans and animals. Rabies virus has an extremely wide host range and its transmission most often occur through the saliva of animals. Without intervention prior to disease progression, rabies has the highest case fatality of

any infectious disease. RABV contains a single-stranded negative-sense RNA genome that encodes five structural proteins: nucleoprotein (N), phosphoprotein (P), matrix protein (M), glycoprotein (G), and RNA-dependent RNA polymerase (L). Among these viral proteins, the RABV glycoprotein (RABV-G) is a pivotal player mediating virus entry and the major target of neutralizing antibodies, thus a key factor for vaccine and drug design.



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