

PRODUCT INFORMATION

Rift Valley Fever Virus Glycoprotein Gc (Strain MP12) (recombinant) Item No. 40874

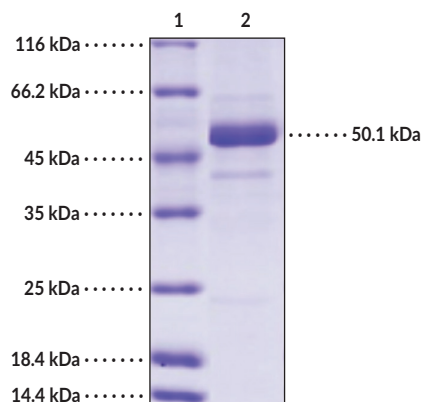
Overview and Properties

Synonym: RVFV Glycoprotein Gc
Source: Recombinant RVFV N-terminal His-tagged glycoprotein Gc expressed in insect cells
Amino Acids: 691-1139
Uniprot No.: A2T077
Molecular Weight: 50.1 kDa
Storage: -80°C (as supplied)
Stability: ≥1 year
Purity: ≥90% estimated by SDS-PAGE
Supplied in: Lyophilized from sterile 20 mM Tris, 150 mM sodium chloride, pH 8.0, with 10% glycerol

Endotoxin Testing: <1.0 EU/μg determined by the LAL endotoxin assay

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: MW Markers

Lane 2: Rift Valley Fever Virus Glycoprotein Gc (Strain MP12)

SDS-PAGE Analysis of Rift Valley Fever Virus Glycoprotein Gc (Strain MP12). This protein has a calculated molecular weight of 50.1 kDa.

WARNING
 THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
 This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
 Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 04/16/2024

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
 ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM

PRODUCT INFORMATION



Description

Rift Valley fever virus (RVFV) is a single-stranded negative-sense RNA virus, member of the *Phlebovirus* genus, and mosquito-transmitted pathogen endemic to sub-Saharan Africa and the Arabian peninsula.¹⁻³ The tripartite RNA genome of RVFV is composed of three segments: L, which encodes L protein, a single-polypeptide viral RNA-dependent RNA polymerase (RdRp), M, which encodes a single open reading frame (ORF) that produces the envelope glycoproteins Gn and Gc and non-structural proteins NSm and Gn/NSm fusion protein, and S, which is ambisense, encoding the nucleoprotein N in the genomic sense orientation and the non-structural protein and major virulence factor NSs in the antigenomic orientation.^{1,2} RVFV glycoprotein Gc is a class II membrane fusion protein that mediates viral entry and is composed of three domains: domain I, which is a 10-stranded β -barrel that organizes the glycoprotein structure, β -stranded domain II, and IgC-like domain III.⁴ Cayman's RVFV Glycoprotein Gc (Strain MP12) (recombinant) protein consists of 459 amino acids and has a calculated molecular weight of 50.1 kDa.

References

1. Faburay, B., Wilson, W., McVey, D.S., *et al.* Rift Valley fever virus structural and nonstructural proteins: recombinant protein expression and immunoreactivity against antisera from sheep. *Vector Borne Zoonotic Dis.* **13**(9), 619-629 (2013).
2. Gaudreault, N.N., Indran, S.V., Balamaran, V., *et al.* Molecular aspects of Rift Valley fever virus and the emergence of reassortants. *Virus Genes* **55**(1), (2019).
3. Wang, X., Hu, C., Ye, W., *et al.* Structure of Rift Valley Fever Virus RNA-dependent RNA polymerase. *J. Virol.* **96**(3), e0171321 (2022).
4. Dessau, M. and Modis, Y. Crystal structure of glycoprotein C from Rift Valley fever virus. *Proc. Natl. Acad. Sci. USA* **110**(5), 1696-1701 (2013).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM