

Rift Valley Fever Virus Antibody

Catalog # ASC10661

Product Information

Application	E
Primary Accession	P03518
Other Accession	P03518 , 1174956
Reactivity	Virus
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	132053
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	RVF virus antibody can detect 10ng RVF virus peptide in ELISA at 1 μ g/mL.

Additional Information

Other Names	Envelope glycoprotein, GP, M polyprotein, Non-structural protein NSm, Glycoprotein G1, Glycoprotein G2, GP
Target/Specificity	RVFV_sM_gp1;
Reconstitution & Storage	Rift Valley Fever Virus antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	Rift Valley Fever Virus Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GP
Function	[Glycoprotein N]: Structural component of the virion that interacts with glycoprotein C (By similarity). It shields the hydrophobic fusion loops of the glycoprotein C, preventing premature fusion (By similarity). The glycoprotein protrusions are arranged on an icosahedral lattice, with T=12 triangulation (PubMed: 19193794 , PubMed: 23319635). They are able to attach the virion to the host cell receptor CD209/DC-SIGN and to promote fusion of membranes with the late endosome after endocytosis of the virion (By similarity). Plays a role in the packaging of ribonucleoproteins and polymerase during virus assembly (By similarity).
Cellular Location	[Glycoprotein N]: Virion membrane {ECO:0000250 UniProtKB:P09613}; Single-pass type I membrane protein {ECO:0000250 UniProtKB:P09613}. Host

Golgi apparatus membrane {ECO:0000250|UniProtKB:P09613}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:P09613}. Host endoplasmic reticulum membrane {ECO:0000250|UniProtKB:P09613}; Single-pass type I membrane protein {ECO:0000250|UniProtKB:P09613}. Note=Interaction between Glycoprotein N and Glycoprotein C is essential for proper targeting of Glycoprotein C to the Golgi complex, where virion budding occurs {ECO:0000250|UniProtKB:P09613} [Isoform NSm protein]: Host mitochondrion outer membrane {ECO:0000250|UniProtKB:P09613}; Single-pass type II membrane protein {ECO:0000250|UniProtKB:P09613}

Background

Rift Valley Fever Virus Antibody: Rift Valley Fever (RVF) virus is an arthropod-borne virus endemic to Africa that infects humans and animals that is transmitted predominantly by mosquitoes. During human infections, symptoms can range from benign fever to severe encephalitis and fatal hepatitis with hemorrhagic fever. The Bunyaviridae family of viruses to which the RVF virus belongs are spherical enveloped viruses with a tripartite RNA genome of negative or ambisense polarity. The three segments are referred to as the L, M, and S segments. The L and M segments are negative polarity and code for the L-dependent RNA polymerase and glycoprotein precursor respectively. The S segment is of ambisense polarity and encodes the nucleoprotein and non-structural proteins. This RVF virus antibody was derived from a peptide sequence near the center of the polyprotein precursor translated from the M segment. It will therefore detect both the precursor and the Glycoprotein G1.

References

Morrill JC and McClain DJ. Epidemiology and pathogenesis of the Rift Valley fever and other phleboviruses, p. 281-93 in H Fraenkel-Conrat and RR Wagner (ed.) The viruses. Plenum Press, New York, NY.
Schmaljohn C and Hooper JW. Bunyaviridae: the viruses and their replication, 4th ed. Lippincott Williams & Wilkins, Philadelphia, PA.
Giorgi C, Accardi L, Nicoletti M, et al. Sequences and coding strategies of the S RNAs of Toscana and Rift Valley fever viruses compared to those of Punta Toro, Sicilian sandfly fever, and Uukuniemi viruses. Virology 1991; 180:738-53.

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