Recombinant Human RSV (B1) glycoprotein G / RSV-G Protein (His Tag)

Catalog Number: PKSV030233

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description	
Species	RSV
Source	HEK293 Cells-derived RSV RSV (B1) glycoprotein G/RSV-G protein His 67-Ala 299,
	with an C-terminal His
Calculated MW	27.0 kDa
Observed MW	80-90 kDa
Accession	O36633-1
Bio-activity	Not validated for activity
Properties	
Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of
	reconstituted samples are stable at $< -20^{\circ}C$ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4
	Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants
	before lyophilization.
	Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data

KDa	M
116 66.2	=
45.0 35.0	= "
25.0	-
18.4 14.4	=

> 95 % as determined by reducing SDS-PAGE.

Background

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Human respiratory syncytial virus (HRSV) is the most common etiological agent of acute lower respiratory tract disease in infants and can cause repeated infections throughout life. It is classified within the genus pneumovirus of the family paramyxoviridae. Like other members of the family, HRSV has two major surface glycoproteins (G and F) that play important roles in the initial stages of the infectious cycle. HRSV G protein is a type II glycoprotein of 289-299 amino acids (depending on the virus strain) with a signal/anchor hydrophobic domain and is extensively modified by the addition of both N-and O-linked oligosaccharides to achieve the mature form of 8-9 kDa. The C-terminal ectodomain of the G protein has a central region and four cysteines which are conserved in all HRSV isolates and have been proposed as the putative receptor binding site. The G protein mediates attachment of the virus to the host cell membrane by interacting with heparan sulfate, initiating the infection. As similar to mucins in amino acid compositions, the RSVG protein can interact with host CX3CR1, the receptor for the CX3C chemokine fractalkine, and thus modulates the immune response and facilitate infection. Secreted glycoprotein G helps RSV escape antibody-dependent restriction of replication by acting as an antigen decoy and by modulating the activity of leukocytes bearing Fcgamma receptors. Unlike the other paramyxovirus attachment proteins, HRSV-G lacks both neuraminidase and hemagglutinating activities.