



Coronavirus Spike glycoprotein (aa 1 - 760) [His] (DAG-H10312)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	A DNA sequence encoding the N-terminal fragment of human coronavirus (isolate HKU1) spike glycoprotein (YP_173238.1) (Met 1-Arg 760), corresponding to the S1 region, was fused with a polyhistidine tag at the C-terminus.
Species	HCoV
Purity	> 90 % as determined by SDS-PAGE
Conjugate	His
Applications	Western Blotting standard, antibody ELISA, immunogen, etc
Predicted N terminal	Gly 16
Molecular Weight	The secreted recombinant human coronavirus spike glycoprotein (aa 1 - 760) comprises 756 amino acids with a predicted molecular mass of 85.8 kDa. As a result of high glycosylation, the apparent molecular mass of the recombinant protein is approximately 130-140 kDa in SDS-PAGE under reducing conditions.
Stability	Samples are stable for up to twelve months from date of receipt at -70 °C
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method
Format	Lyophilized
Concentration	Specific concentrations are included in the hardcopy of COA.
Size	100 µg
Buffer	Lyophilized from sterile PBS, pH 7.4

Preservative	None
Storage	Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

BACKGROUND

Introduction	The spike (S) glycoprotein of coronaviruses contains protrusions that will only bind to certain receptors on the host cell: they are essential for both host specificity and viral infectivity. The term 'peplomer' is typically used to refer to a grouping of heterologous proteins on the virus surface that function together. The spike (S) glycoprotein of coronaviruses is known to be essential in the binding of the virus to the host cell at the advent of the infection process. Most notable is severe acute respiratory syndrome (SARS). The severe acute respiratory syndrome-coronavirus (SARS-CoV) spike (S) glycoprotein alone can mediate the membrane fusion required for virus entry and cell fusion. It is also a major immunogen and a target for entry inhibitors. The SARS-CoV spike (S) protein is composed of two subunits; the S1 subunit contains a receptor-binding domain that engages with the host cell receptor angiotensin-converting enzyme 2 and the S2 subunit mediates fusion between the viral and host cell membranes. The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity, during infection with SARS-CoV.
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