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Datasheet for ABIN7199274

SARS-CoV-2 Spike Protein (B.1.621 - mu, Trimer) (His-Avi Tag,Biotin)

Overview

Quantity:	200 µg
Target:	SARS-CoV-2 Spike
Protein Characteristics:	B.1.621 - mu, Trimer
Origin:	SARS Coronavirus-2 (SARS-CoV-2), SARS CoV-2 Mu
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This SARS-CoV-2 Spike protein is labelled with His-Avi Tag,Biotin.

Product Details

Purpose:	Biotinylated SARS-CoV-2 Spike Trimer (T95I, Y144S, Y145N, R346K, E484K, N501Y, D614G, P681H, D950N), His,Avitag™ (MALS verified)
Sequence:	Val 16 - Pro 1213
Specificity:	SARS-CoV-2 Spike Trimer (T95I, Y144S, Y145N, R346K, E484K, N501Y, D614G, P681H, D950N)
Characteristics:	Biotinylated SARS-CoV-2 Spike Trimer, His,Avitag (SPN-C82Ek) is the ectodomain of SARS-CoV-2 spike protein which contains AA Val 16 - Pro 1213 (Accession # QHD43416.1). The mutations T95I, Y144S, Y145N, R346K, E484K, N501Y, D614G, P681H, D950N were identified in the SARS-CoV-2 Mu variant (Pango lineage: B.1.621). The recombinant protein is expressed from human 293 cells (HEK293) with T4 fibrin trimerization motif and a polyhistidine tag at the C-terminus. Proline substitutions (F817P, A892P, A899P, A942P, K986P, V987P) and alanine substitutions (R683A and R685A) are introduced to stabilize the trimeric prefusion state of SARS-CoV-2 S protein and abolish the furin cleavage site, respectively.

Product Details

Purity: >95 % as determined by SDS-PAGE.

Endotoxin Level: Less than 1.0 EU per µg by the LAL method.

Grade: MALS verified

Target Details

Target: SARS-CoV-2 Spike

Abstract: [SARS-CoV-2 Spike Products](#)

Background: Synonyms: Spike,S protein,Spike glycoprotein,S glycoprotein,
Description: It's been reported that SARS-CoV-2 can infect the human respiratory epithelial cells through interaction with the human ACE2 receptor. The spike protein is a large type I transmembrane protein containing two subunits, S1 and S2. S1 mainly contains a receptor binding domain (RBD), which is responsible for recognizing the cell surface receptor. S2 contains basic elements needed for the membrane fusion. The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity.

Molecular Weight: 140.0 kDa

Application Details

Application Notes: This protein carries a polyhistidine tag at the C-terminus, followed by an Avi tag (Avitag™). The protein has a calculated MW of 140.0 kDa. The protein migrates as kDa under reducing (R) condition due to glycosylation.

Comment: Ready-to-use Avitag™ biotinylated protein:
The product is exclusively produced using the Avitag™ technology. Briefly, a unique 15 amino acid peptide, the Avi tag, is introduced into the recombinant protein during expression vector construction. The single lysine residue in the Avi tag is enzymatically biotinylated by the E. Coli biotin ligase BirA.

This single-point enzymatic labeling technique brings many advantages for commonly used binding assays. The biotinylation happens on the lysine residue of Avi tag, and therefore does NOT interfere with the target protein's natural binding activities. In addition, when immobilized on an avidin-coated surface, the protein orientation is uniform because the position of the Avi tag in the protein is precisely controlled.

Restrictions: For Research Use only

Handling

Format: Lyophilized

Buffer: PBS

Storage: -20 °C

Storage Comment: -20°C