

Datasheet for ABIN7013339

SARS-CoV-2 Spike S1 Protein (B.1.617.2 - delta) (His tag,AVI tag,Biotin)



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1 Publication

Overview

Quantity:	200 µg
Target:	SARS-CoV-2 Spike S1
Protein Characteristics:	B.1.617.2 - delta
Origin:	SARS Coronavirus-2 (SARS-CoV-2), SARS CoV-2 Delta
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This SARS-CoV-2 Spike S1 protein is labelled with His tag,AVI tag,Biotin.

Product Details

Purpose:	Biotinylated SARS-CoV-2 Spike S1 (T19R, G142D, EF156-157del, R158G, L452R, T478K, D614G, P681R), His,Avitag™
Specificity:	Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin. SARS-CoV-2 Spike S1 (T19R, G142D, EF156-157del, R158G, L452R, T478K, D614G, P681R)
Characteristics:	Biotinylated SARS-CoV-2 Spike S1, His,Avitag is expressed from human 293 cells (HEK293). It contains AA Val 16 - Arg 685 (Accession # QHD43416.1). The mutations (T19R, G142D, EF156-157del, R158G, L452R, T478K, D614G, P681R) were identified in the SARS-CoV-2 variants which emerged in India (known as B.1.617.2).
Purity:	>95 % as determined by SDS-PAGE.
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

Target Details

Target:	SARS-CoV-2 Spike S1
Abstract:	SARS-CoV-2 Spike S1 Products
Target Type:	Viral Protein
Background:	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:	78.4 kDa
NCBI Accession:	QHD43416

Application Details

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, pH 7.4
Storage:	-20 °C

Publications

Product cited in: Erickson, Logsdon, Rhea, Hansen, Holden, Banks, Smith, German, Farr, Morley, Weaver, Hirsch, Kovac, Kontsekkova, Baumann, Omer, Raber: "Blood-brain barrier penetration of non-replicating SARS-CoV-2 and S1 variants of concern induce neuroinflammation which is accentuated in a mouse model of Alzheimer's disease." in: **Brain, behavior, and immunity**, Vol. 109, pp. 251-268, (2023) ([PubMed](#)).