

Product Data Sheet

SARS-CoV-2 S Protein RBD (N501Y, K417N, E484K, HEK293, His)

Cat. No.: HY-P78278

Synonyms: S protein RBD; S glycoprotein RBD; Spike protein RBD

Species: Virus
Source: HEK293

Accession: QHD43416 (R319-F541, N501Y, K417N, E484K)

Gene ID: 43740568 Molecular Weight: 30-40 kDa

PROPERTIES

Biological Activity	Immobilized SARS-COV-2 Spike RBD (N501Y,K417N,E484K) , His Tag at $0.5\mu g/ml$ (100ul/Well) on the plate. Dose response curve for Human ACE2, hFc Tag with the EC $_{50}$ of 9.9ng/ml determined by ELISA.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4. Normally 5% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu g/mL$ in ddH $_2$ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

The SARS-CoV-2 S1 Protein plays a crucial role in the early stages of viral infection. Spike protein S1 facilitates the attachment of the virion to the cell membrane by interacting with host receptors, thereby initiating the infection process. This initial binding event is pivotal for the subsequent entry of the virus into the host cell. Concurrently, Spike protein S2', serving as a viral fusion peptide, comes into play after S2 cleavage during virus endocytosis. The unmasking of S2' is a key step in the viral fusion process, enabling the merging of the viral membrane with the endosomal membrane and facilitating the release of the viral genetic material into the host cell cytoplasm. The concerted action of these S1 and S2' functionalities underscores the significance of the SARS-CoV-2 S1 Protein in mediating viral entry and fusion, crucial steps in the viral life cycle.

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 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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