

Recombinant SARS-CoV-2 Spike Protein(RBD), His-tag, GMP Grade

Cat. No. Spike-038THP Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant SARS-CoV-2 Spike Protein(RBD) (Arg319-phe541) was fused with His tag, produced in HEK293 cell in an animal component free process under cGMP guidelines.
Species	SARS-CoV-2
Source	HEK293
ProteinLength	Arg319-phe541
Description	The single-positive-strand RNA genome of SARS-CoV-2, encodes four major structural proteins: spike (S), envelope (E), membrane (M) and nucleocapsid (N). The spike protein comprises an N-terminal (S1) subunit, which contains the roughly 200-residue receptor binding domain (RBD), and a C-terminal subunit (S2), which contains the fusion protein. The RBD of SARS-CoV-2 binds more tightly to the extracellular domain of angiotensin-converting enzyme 2 (ACE2) than the homologous SARS-CoV (2002) RBD. The higher affinity results from sequence changes in RBD and this has been proposed to underlie the higher transmissibility of SARS-CoV-2. The previously determined structures showed that SARS-CoV RBD contains a core structure and a receptor-binding motif (RBM) and that the RBM binds to the outer surface of the claw-like structure of ACE2. Importantly, two virus-binding hot spots on human ACE2 has been identified. A number of naturally selected RBM mutations occurred near these two virus-binding hot spots, and these residues largely

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determined the host range of SARS-CoV.

Form	Phosphate Buffered Saline, 5%mannital, 0.05% Tween20, pH7.4
Molecular Mass	26.20 kDa
Endotoxin	>95% pure (SDS-PAGE).
Storage	For long term storage, the product should be stored at -20°C or lower.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

GENE INFORMATION

Gene Name	S surface glycoprotein [Severe acute respiratory syndrome coronavirus 2]
Official Symbol	S
Gene ID	43740568
Protein Refseq	YP_009724390.1
UniProt ID	P0DTC2

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