Certificate of Analysis & Data Sheet

Catalog Number: 230-30166

Recombinant SARS-CoV-2 S1 Subunit Protein (RBD) with C-terminal Mouse IgG Fc Tag

Source

Species	SARS-CoV-2
Accession Number	QHD43416
Expressed Region	Arg319-Phe541
Synonyms	Spike protein, S Protein, S1 Subunit, Host Cell Receptor Binding Domain (RBD)

Preparation

Expression System	Human embryonic kidney 293 (HEK293) cells
Tag	C-terminal mouse IgG Fc-tag
Purification	Protein G affinity purification
Purity	>95 %
Purity Determined By	SDS-PAGE under reducing conditions and visualized by Coomassie blue staining
Molecular Weight	Recombinant protein product has a calculated molecular mass of 50 kDa including 25 kDa mouse IgG Fc-tag. Due to the abundant glycosylation, it migrates as approximately ?65 kDa major protein band in SDS-PAGE under DTT, beta-mercaptoethanol reducing conditions. See deglycosylation analysis image below.

Protein Specifications

Format	Liquid
Formulation	Supplied as a 0.2 um filtered solution in PBS (pH 7.4)
Concentration	Lot specific (see the label on the vial), determined by BCA protein assay
Recommended Applications	Binding assay, glycosylation analysis, biotin/dye/bead conjugation, other functional assays.

SDS-PAGE Image

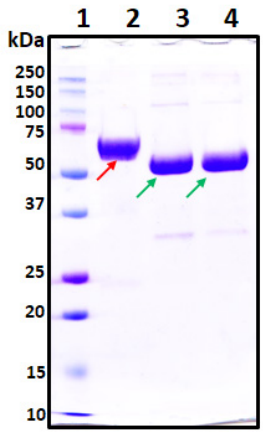

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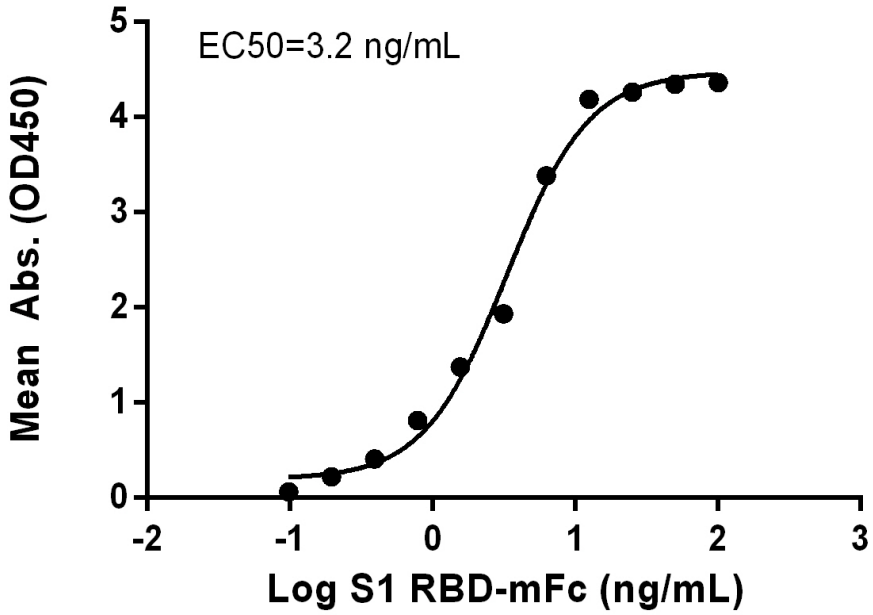
Figure 1. Deglycosylation of purified recombinant proteins. Purified proteins were untreated (Lane 2) or treated with deglycosylation under native (Lane 3) or reducing (Lane 4) conditions. Deglycosylation treatment resulted in a mobility shift of the protein to produce one major band at the expected size (~50 kDa), thus indicating that the untreated recombinant protein (Lane 2, ~65 kDa) was glycosylated.
Lane 1: Protein standard ladder (kDa)
Lane 2: Untreated protein (~65 kDa, red arrow) under reducing conditions.
Lane 3: Treated protein (~50 kDa, green arrow) with deglycosylation enzymes under native conditions.
Lane 4: Treated protein (~50 kDa, green arrow) with deglycosylation enzymes under reducing conditions.

Activity

Measured by its binding ability in a functional ELISA. Recombinant S1/RBD-mFc (Code: 230-30166) can bind immobilized recombinant human ACE2 (Code: 230-30165) with EC50 at 3.2 ng/mL.



Shipping

Ice packs

Storage/Stability

Upon arrival, the protein may be stored for 2 weeks at 4 °C. For long term storage, it is recommended to store at -20 °C or -80 °C in appropriate aliquots. Avoid repeated freeze-thaw cycles.