

# SARS-COV-2 Spike S (B.1.640.2/IHU) Trimer Protein

Cat. No. IHU-VM1ST

## Description

Recombinant SARS-COV-2 Spike S (B.1.640.2/IHU) Trimer Protein is expressed from HEK293 with His tag at the C-Terminus.

## Source

It contains Val16-Pro1213(E96Q, CNDPFLGV136-144del, R190S, D215H, R346S, N394S, Y449N, E484K, F490S, N501Y, D614G, P681H, T859N, D1139H). 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.

## Accession

QHD43416.1

## Molecular Weight

The protein has a predicted MW of 133.60 kDa. Due to glycosylation, the protein migrates to 140-160 kDa based on Tris-Bis PAGE result.

## Endotoxin

Less than 1EU per  $\mu\text{g}$  by the LAL method.

## Purity

> 95% as determined by Tris-Bis PAGE

## Formulation and Storage

### Formulation

Lyophilized from 0.22 $\mu\text{m}$  filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

### Reconstitution

Centrifuge the tube before opening. Reconstituting to a concentration more than 100  $\mu\text{g}/\text{ml}$  is recommended. Dissolve the lyophilized protein in distilled water.

### Storage

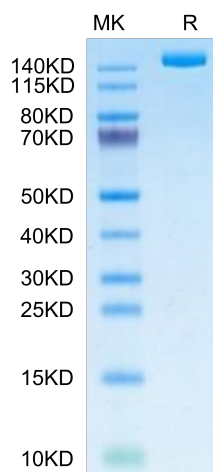
-20 to -80°C for 12 months as supplied from date of receipt. -20 to -80°C for 3-6 months in unopened state after reconstitution. 2-8°C for 2-7 days after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

The spike protein (S) of coronavirus (CoV) attaches the virus to its cellular receptor, angiotensin-converting enzyme 2 (ACE2). A defined receptor-binding domain (RBD) on S mediates this interaction. The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity.

## Assay Data

### Tris-Bis PAGE



SARS-COV-2 Spike S (B.1.640.2/IHU) Trimer on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.

### ELISA Data

# SARS-COV-2 Spike S (B.1.640.2/IHU) Trimer Protein

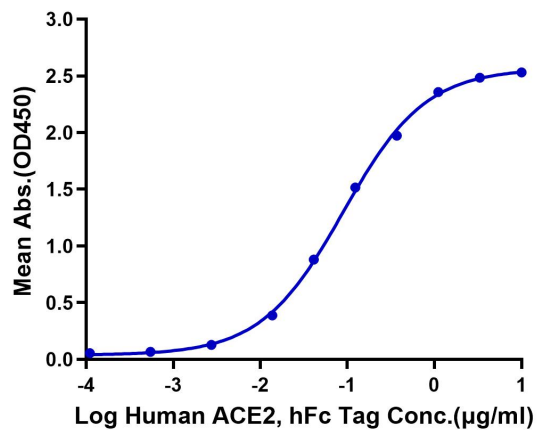
Cat. No. IHU-VM1ST



## Assay Data

### SARS-COV-2 Spike S (B.1.640.2/IHU) Trimer, His Tag ELISA

0.05µg SARS-COV-2 Spike S (B.1.640.2/IHU) Trimer, His Tag Per Well



Immobilized SARS-COV-2 Spike S (B.1.640.2/IHU) Trimer, His Tag at 0.5µg/ml (100µl/well) on the plate. Dose response curve for Human ACE2, hFc Tag with the EC50 of 89.9ng/ml determined by ELISA.