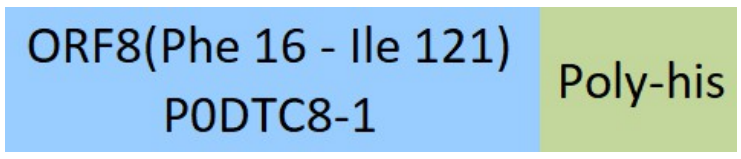
Synonym

ORF8

Source

SARS-CoV-2 ORF8 Protein, His Tag(OR8-C52H1) is expressed from human 293 cells (HEK293). It contains AA Phe 16 - Ile 121 (Accession # P0DTC8-1). Predicted N-terminus: Phe 16

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 14.3 kDa. The protein migrates as 18-21 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

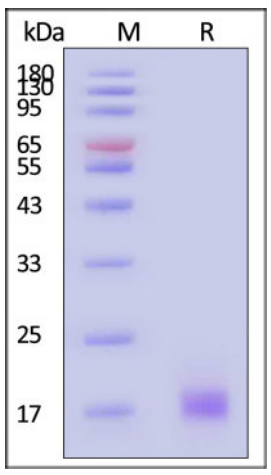
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

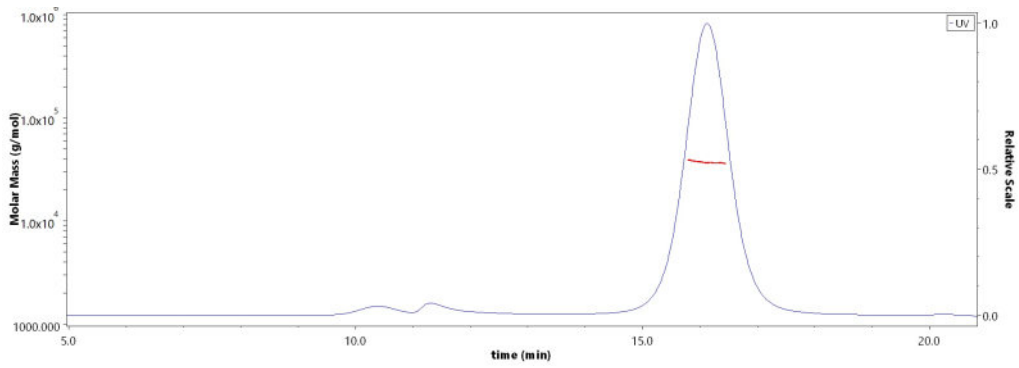
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



SARS-CoV-2 ORF8 Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS



The purity of SARS-CoV-2 ORF8 Protein, His Tag (Cat. No. OR8-C52H1) is more than 85% and the molecular weight of this protein is around 30-44 kDa verified by SEC-MALS.
Report

Background

The viral protein encoded by open reading frame 8 (ORF8) of SARS-CoV-2, which shares the least homology with SARS-CoV among all viral proteins, directly interacts with MHC-I molecules and mediates their down-regulation. In ORF8-expressing cells, MHC-I molecules are selectively targeted for lysosomal degradation via autophagy. Thus, SARS-CoV-2–infected cells are much less sensitive to lysis by cytotoxic T lymphocytes.

Clinical and Translational Updates