Recombinant SARS-CoV-2 S2 Subunit Protein, Full Length

Source

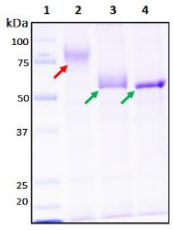
- **Species** SARS-CoV-2
- **Accession Number** QHD43416
- **Expressed Region** Met697 - Pro1213
- **Synonyms** Spike protein, S Protein, S2 Subunit.

Preparation

- **Expression System** Human embryonic kidney 293 (HEK293) cells
- **Tag** C-terminal his-tag
- **Purification** His-tag affinity purification by immobilized metal ion affinity chromatography (IMAC)
- **Purity** >90%
- **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 ~60 kDa. Due to the abundant glycosylation, it migrates as approximately ~80 kDa protein bands in SDS-PAGE under DTT, beta-mercaptoethanol reducing conditions. See deglycosylation analysis image below.

Protein Specifications

- **Format** Liquid
- **Formulation** Supplied as a 0.2 µm filtered solution in PBS (pH 7.4)
- **Concentration** Lot specific (see the label on the vial), determined by BCA protein assay.
- **SDS-PAGE Image** Deglycosylation of purified recombinant proteins. Purified proteins were untreated (Lane 2) or treated with Protein Deglycosylation Kit 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 (~60 kDa), thus indicating that the untreated recombinant protein (Lane 2, ~80 kDa) was glycosylated. **Lane 1**: Protein standard ladder (kDa). **Lane 2**: Untreated protein (~80 kDa, *red arrow*) under reducing conditions. **Lane 3**: Partially cleaved protein (~60 kDa, *green arrow*) with deglycosylation enzymes under native conditions. **Lane 4**: Fully cleaved protein (~60 kDa, *green arrow*) with deglycosylation enzymes under reducing conditions.



Shipping

The product is shipped with 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.

References

- F Wu, et al. A new coronavirus associated with human respiratory disease in China. **Nature**. 579, 265–269 (2020).
- N Dong, et al. Genomic and protein structure modelling analysis depicts the origin and infectivity of 2019-nCoV, a new coronavirus which caused a pneumonia outbreak in Wuhan, China. **bioRxiv** (2020).
- M Hoffmann, et al. SARS-CoV-2 Cell Entry Depends on ACE2 and TMPRSS2 and Is Blocked by a Clinically Proven Protease Inhibitor. **Cell**. 181, 1–10 (2020).
- W Li et al. Angiotensin-converting enzyme 2 is a functional receptor for the SARS coronavirus. **Nature**. 426, 450–454 (2003).