

**Synonym**

ACE-2,ACEH,ACE2

**Source**

Human ACE2, Fc Tag (AC2-H5257) is expressed from human 293 cells (HEK293). It contains AA Gln 18 - Ser 740 (Accession # Q9BYF1-1).

Predicted N-terminus: Gln 18

**Molecular Characterization**

ACE2(Gln 18 - Ser 740) Q9BYF1-1	Fc(Pro 100 - Lys 330) P01857
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This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 110.0 kDa. The protein migrates as 125-150 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

**Formulation**

Delivered as bulk protein in a 0.2 µm filtered solution of 50 mM Tris, 150 mM NaCl, pH7.5 with glycerol as protectant.

Contact us for customized product form or formulation.

**Storage**

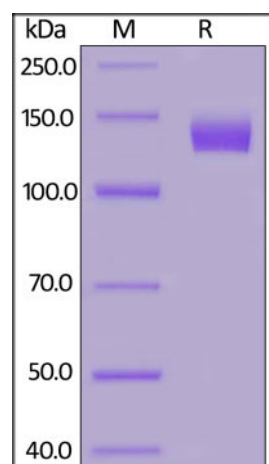
*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

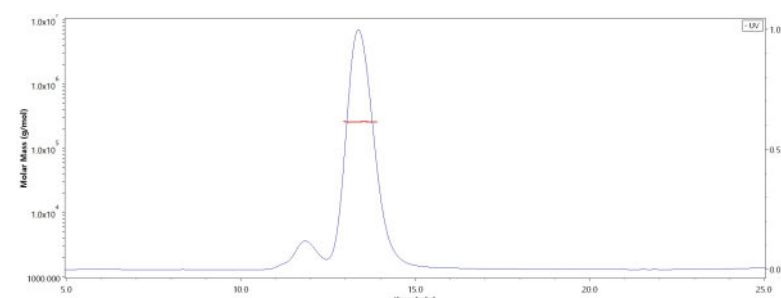
- The product **MUST** be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

**Shipping**

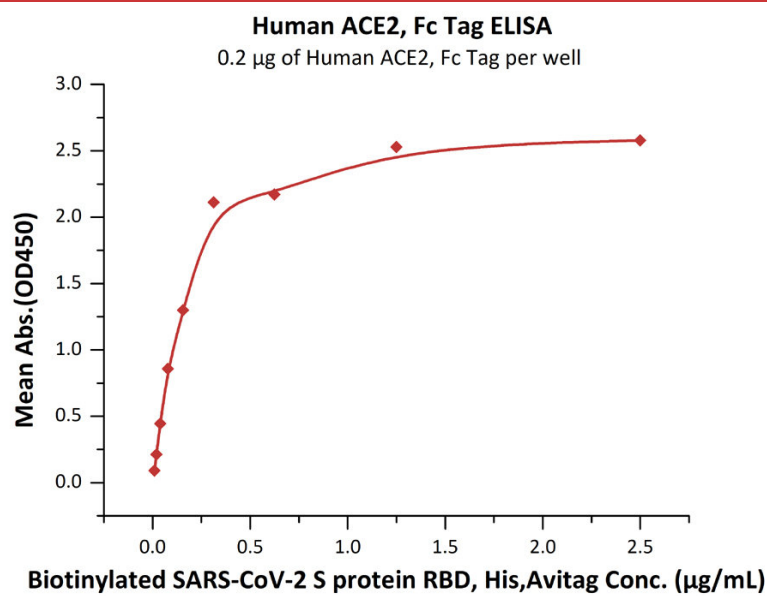
*This product is supplied as sterile liquid solution and shipped frozen with dry ice, please inquire the shipping cost.*

**SDS-PAGE**

Human ACE2, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

**Bioactivity-ELISA****SEC-MALS**

The purity of Human ACE2, Fc Tag (Cat. No. AC2-H5257) was more than 90% and around 250-280 kDa verified by SEC-MALS.



Immobilized Human ACE2, Fc Tag (Cat. No. [AC2-H5257](#)) at 2 µg/mL (100 µL/well) can bind Biotinylated SARS-CoV-2 S protein RBD, His,Avitag (Cat. No. [SPD-C82E9](#)) with a linear range of 0.01-0.313 µg/mL (QC tested).

## Background

Angiotensin-converting enzyme 2 (ACE2) is also known as ACEH (ACE homolog), is an integral membrane protein with considerable homology to ACE, which belongs to the peptidase M2 family. ACE2 is an exopeptidase that catalyses the conversion of angiotensin I to the nonapeptide angiotensin, or the conversion of angiotensin II to angiotensin 1-7. ACE2 may be an important regulator of heart function. In case of human coronaviruses SARS and HCoV-NL63 infections, ACE-2 serve as functional receptor for the spike glycoprotein of both coronaviruses. ACE2 is activated by chloride and fluoride, but not bromide and Inhibited by MLN-4760, cFP\_Leu, and EDTA, but not by the ACE inhibitors lisinopril, captopril and enalaprilat. ACE2 is active from pH 6 to 9, and the optimum pH is 6.5 in the presence of 1 M NaCl.

## References

- (1) [Turner AJ., et al., 2002, Can. J. Physiol. Pharmacol. 80 \(4\): 346–53.](#)
- (2) [Katovich MJ., et al., 2005, Exp. Physiol. 90 \(3\): 299–305.](#)
- (3) [Donoghue M., et al., 2000, Circ. Res. 87:E1-E9.](#)
- (4) [Tipnis S.R., et al., 2000, J. Biol. Chem. 275:33238-33243.](#)
- (5) [Vickers C., et al., 2002, J. Biol. Chem. 277:14838-14843.](#)