

Synonym

ACE-2,ACEH,ACE2

Source

PE-Labeled Human ACE2, His Tag(AC2-HP2H3) 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	Poly-his
------------------------------------	----------

This protein carries a polyhistidine tag at the C-terminus

The protein has a calculated MW of 97.9 kDa.

Conjugate

PE

Excitation Wavelength: 488 nm / 561 nm

Emission Wavelength: 575 nm

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.

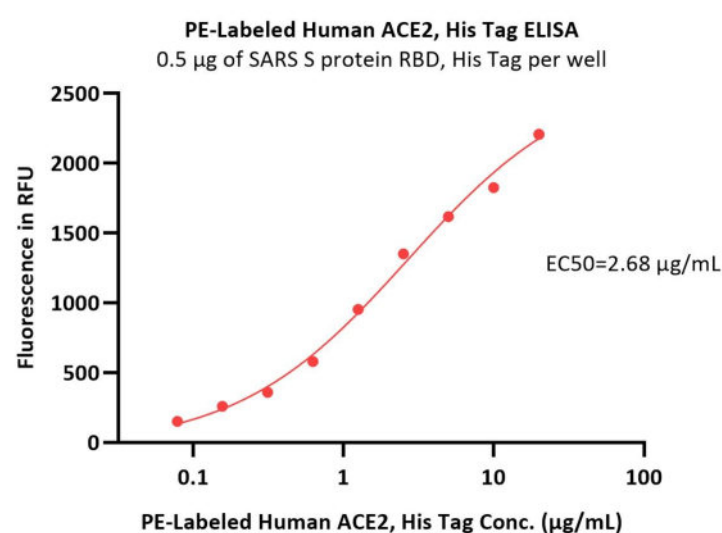
Storage

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

Please protect from light and avoid repeated freeze-thaw cycles.

This product is stable after storage at:

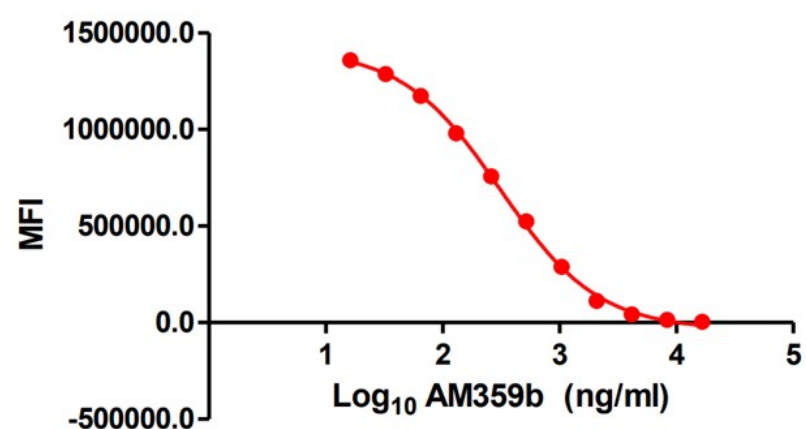
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

Bioactivity-ELISA

Immobilized SARS S protein RBD, His Tag (Cat. No. SPD-S52H6) at 5 $\mu\text{g/mL}$ (100 μL /well) can bind PE-Labeled Human ACE2, His Tag (Cat. No. AC2-HP2H3) with a linear range of 0.078-20 $\mu\text{g/mL}$ (QC tested).

Bioactivity-FACS

PE-Labeled Human ACE2 FACS Assay



Biotinylated SARS-CoV-2 Spike RBD Protein, His, Avitag™ (MALS verified) (Cat. No. SPD-C82E9) at 10pg/bead on Recombinant Streptavidin Protein (Cat. No. STN-N5116) at 2.5pg/bead were conjugated to fluorochrome-encoded microspheres. Anti-SARS-CoV-2 Spike RBD Broadly Neutralizing Antibody, Human IgG1 (AM359b) (MALS verified) (Cat. No. SPD-M265) competes with PE-Labeled Human ACE2, His tag (Cat. No. AC2-HP2H3) for binding to Biotinylated SARS-CoV-2 Spike RBD Protein encapsulated beads with a linear range of 16.25-8320 ng/mL.

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.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.