

Store at
-80°C

#99339

Human ACE2 (18-652) Recombinant Protein (hFc-Tag)

20 µg

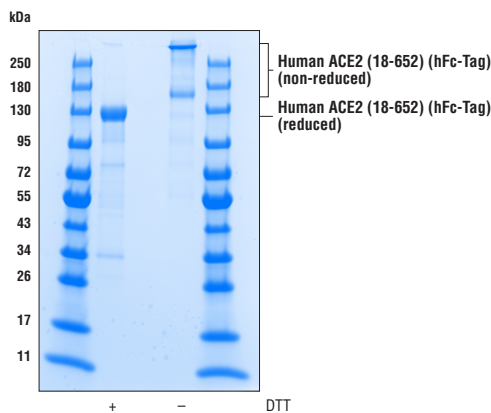
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New 06/20

For Research Use Only. Not For Use In Diagnostic Procedures.

Description: Human ACE2 (18-652) Recombinant Protein (hFc-Tag) is derived from a recombinant expression construct corresponding to the extracellular domain of human ACE2 protein, including the sequence regions that function as receptors for SARS and SARS-CoV-2 coronaviruses. The expressed protein contains a human IgG1 Fc-Tag at its carboxy terminus.

Background: ACE2 is a carboxypeptidase that catalyses the conversion of angiotensin I to angiotensin 1-9, or of angiotensin II to the vasodilator angiotensin 1-7 (1). ACE2 is a critical component in the renin-angiotensin system (RAS). ACE2 is predominantly expressed in vascular endothelial cells of the heart and kidney and Leydig and Sertoli cells of the testis (2,3). The unique expression pattern of ACE2 determines its essential role in the regulation of cardiovascular and kidney functions, as well as fertility. ACE2 protein is localized mainly in the extracellular space with its carboxy terminal end attached to the membrane via its transmembrane domain. Active ACE2 enzyme is secreted by cleavage at the amino terminus. Research studies have shown that ACE2 expression is elevated in human failing heart (4). ACE2 has also been identified as the receptor for SARS and SARS-CoV-2 coronaviruses (5-7).



The purity of Human ACE2 (18-652) Recombinant Protein (hFc-Tag) was determined by densitometry after SDS-PAGE of 2 µg of protein, followed by staining with Coomassie Blue. Purity values were determined from the DTT-reduced samples (+).

Molecular Weight: 150, 300 kDa (non-reduced);
130 kDa (reduced)

Formulation:

Expression Host: Human (HEK293 cells)
Supplied in a PBS solution (pH 7.2).

Purity: 79%, determined by SDS-PAGE.

Storage: Stable at -80°C for 1 year after receipt. Avoid repeated freeze-thaw cycles.

Background References:

- (1) Schmidt, B.L. et al. (2000) *J Clin Microbiol* 38, 1279-82.
- (2) Boehm, M. and Nabel, E.G. (2002) *N Engl J Med* 347, 1795-7.
- (3) Douglas, G.C. et al. (2004) *Endocrinology* 145, 4703-11.
- (4) Goulter, A.B. et al. (2004) *BMC Med* 2, 19.
- (5) Li, W. et al. (2005) *EMBO J* 24, 1634-43.
- (6) Hoffmann, M. et al. (2020) *Cell* 181, 271-280.e8.
- (7) Lan, J. et al. (2020) *Nature* 581, 215-20.

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide **Species Cross-Reactivity:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected *Species enclosed in parentheses are predicted to react based on 100% homology.*