

ACE2 Protein, Cynomolgus (Biotinylated, HEK293, His-Avi)

Cat. No.:	HY-P78054
Synonyms:	ACE-2; ACEH; ACE2
Species:	Cynomolgus
Source:	HEK293
Accession:	A0A2K5X283 (Q18-V739)
Gene ID:	102130864
Molecular Weight:	87-110 kDa

PROPERTIES

Biological Activity	Immobilized SARS-COV-2 Spike RBD, hFc Tag at 5µg/ml (100µl/well) on the plate. Dose response curve for Biotinylated Cynomolgus ACE2, His Tag with the EC ₅₀ of 76.8ng/ml determined by ELISA.
Appearance	Solution.
Formulation	Supplied as a 0.22 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	<p>Angiotensin-converting enzyme 2 (ACE2), an indispensable counter-regulatory carboxypeptidase within the renin-angiotensin hormone system, plays a pivotal role in maintaining cardiovascular homeostasis by intricately regulating blood volume and systemic vascular resistance. Through its enzymatic activity, ACE2 converts angiotensin I to angiotensin 1-9 and angiotensin II to angiotensin 1-7, exerting anti-hypertrophic effects in cardiomyocytes and acting as a vasodilator with anti-proliferative properties. Beyond its central role in the renin-angiotensin system, ACE2 exhibits broad enzymatic activity, cleaving various vasoactive peptides such as neurotensin, kinetensin, and des-Arg bradykinin. Moreover, ACE2 is proficient in cleaving other biological peptides, including apelin, casomorphins, and dynorphin A. Notably, ACE2's C-terminus, homologous to collectrin, orchestrates the trafficking of the neutral amino acid transporter SL6A19 to the gut epithelial cell membrane, thereby regulating its surface expression and catalytic activity. Importantly, ACE2 also serves as a receptor for human coronaviruses SARS-CoV, SARS-CoV-2, and HCoV-NL63, implicating it in microbial infection pathways^{[1][2][3][4]}.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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