

32-6636: ACE2 Rat

Alternative Name :

ACE2, 2010305L05Rik, Angiotensin I Converting Enzyme, Angiotensin I Converting, Enzyme (Peptidyl-Dipeptidase A), Angiotensin-Converting Enzyme Homolog, Angiotensin-Converting Enzyme, ACE-Related Carboxypeptidase, Metalloprotease MPROT15, Peptidyl-Dipeptidase A, ACEH, EC 3.4.17.23, EC 3.4.17.

Description

Source: Sf9, Baculovirus cells.

Sterile Filtered colorless solution.

Angiotensin converting enzyme 2 or ACE-2 is an enzyme that is located in the cell membranes in different organs such as kidney, intestines, lungs, heart & arteries. ACE2 acts as an entry receptor of SARS coronaviruses & SARS-CoV-2. The coronavirus spike (S) glycoprotein is a class I viral fusion antigen bound to the external envelope of the virion that has a role in a crucial part in viral infection by identifying host cell receptors and starting fusion of the viral and cellular membranes. Couple of main domains in coronavirus S1 have been identified, the N-terminal domain and C-terminal domain. One or the other and/or both S1 domains acts as a receptor-binding domain. SARS-CoV + MERS-CoV equally use C-domain to attach their receptors. ACE2 is a type I transmembrane antigen with an extracellular N-terminal domain having the catalytic site and an intracellular C-terminal tail. ACE2 has a signal peptide, a transmembrane domain & a single metalloproteinase active site holds an HEXXH zinc-binding domain. ACE-2 takes part as a mono-carboxypeptidase which degrades Ang I to produce the nonapeptide Ang 1-9 and Ang II to create the heptapeptide Ang 1-7.

ACE2 Rat produced in Sf9 Baculovirus cells is a single, glycosylated polypeptide chain containing 731 amino acids (18-740 aa) and having a molecular mass of 84.7kDa. ACE2 is fused to an 8 amino acid His-Tag at C-terminus and purified by proprietary chromatographic techniques.

Product Info

Amount : 2 µg / 10 µg

Purification : Greater than 95.0% as determined by SDS-PAGE.

Content : The ACE2 solution contains 10% Glycerol and Phosphate-Buffered Saline (pH 7.4).

Storage condition : Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Amino Acid : QSLIEEKAES FLNKFNQEAE DLSYQSSLAS WNYNTNITEE NAQKMNEAAA KWSAFYEEQS KIAQNFSLQE IQNATIKRQL KALQQSGSSA LSPDKNKQLN TILNTMSTIY STGKVCNSMN PQECFLLEPG LDEIMATSTD YNRRLLWAWEG WRAEVGKQLR PLYEEYVVLK NEMARANNYE DYGDYWRGDY EAEGVEGYNY NRNQLIEDVE NTFKEIKPLY EQLHAYVRTK LMEVYPSYIS PTGCLPAHLL GDMWGRFWTN LYPLTTPFLQ KPNIDVTDAM VNQSWDAERI FKEAEKFFVS VGLPQMTPGF WTNSMLTEPG DDRKVVCHPT AWDLGHGDFR IKMCTKVTMD NFLTAHHEMG HIQYDMAYAK QPFLLRNGAN EGFHEAVGEI MSLSAATPKH LKSIGLLPSN FQEDNETEIN FLLKQALTIV GTLPFTYMLE KWRWMVFQDK IPREQWTKKW WEMKREIVGV VEPLPHDETY CDPASLFHVS NDYSFIRYIT RTIYQFQFQE ALCQAAKHDG PLHKCDISNS TEAGQKLLNM LSLGNSGPWT LALENVVGSR NMDVKPLLNQ FQPLFVWLKE QNRNSTVGWS TDWSPYADQS IKVRISLKSA LGKNAYEWD NEMYLFRSSV AYAMREYFSR EKNQTVPFGE ADVVWSDLPK RVSFNFFVTS PKNVSDIIPR SEVEEAIRMS RGRINDIFGL NDNSLEFLGI YPTLKPPYEP PVTLEHHHHH H.