Mouse ACE2 / Angiotensin-Converting Enzyme 2 Protein (His Tag)

Catalog Number: **50249-M08H**

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General Information

Gene Name Synonym:

RP23-330O24.1, 2010305L05Rik

Protein Construction:

A DNA sequence encoding the mouse ACE2 isoform 1 (Q8R0I0-1) extracellular domain (Met 1-Thr 740) was fused with a polyhistidine tag at the C-terminus.

Source: Mouse

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Gln 18

Molecular Mass:

The secreted recombinant mouse ACE2 comprises 734 amino acids and has a predicted molecular mass of 85 kDa. As a result of glycosylation, it migrates as an approximately 110 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 25mM Tris, 150mM NaCl, 1mM ZnCl2, pH 7.5

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

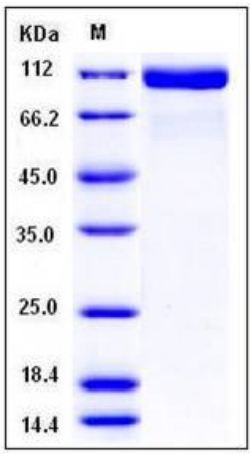
Usage Guide

Storage:

Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

Angiotensin-converting enzyme 2, also known as ACE-related carboxypeptidase, Angiotensin-converting enzyme homolog, Metalloprotease MPROT15, ACEH and ACE2, is a single-pass type I membrane protein which belongs to thepeptidase M2 family. ACEH / ACE2 is identified as a zinc metalloprotease structurally consisting of a N-terminal signal peptide, a single catalytic domain, a C-terminal membrane anchor, and a short cytoplasmic tail. ACEH / ACE2 is expressed in endothelial cells from small and large arteries, and in arterial smooth muscle cells. It is expressed in lung alveolar epithelial cells, enterocytes of the small intestine, Leydig cells and Sertoli cells (at protein level). It is expressed in heart, kidney, testis, and gastrointestinal system. ACEH / ACE2 is a carboxypeptidase which converts angiotensin I to angiotensin 1-9, a peptide of unknown function, and angiotensin II to angiotensin 1-7, a vasodilator. It is also able to hydrolyze apelin-13 and dynorphin-13 with high efficiency. ACEH / ACE2 may be an important regulator of heart function. It may also serve as functional receptor for the spike glycoprotein of both coronaviruses.

References

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2. Carey, R.M. et al., 2004, Hypertension. 43: 943-944.
3. Crackower, M. A. et al., 2002, Nature. 417: 822-828.
4. Tipnis, S.R. et al., 2000, J. Biol. Chem. 275: 33238-33243.
5. Oudit, G.Y. et al., 2003, Trends Cardiovasc. Med. 13: 93-101.
6. Wang, S. et al., 2008, Virus. Res. 136: 8-15.