

Human ECE-2 Protein (His Tag)



Sino Biological
Biological Solution Specialist

Catalog Number: 10207-H07H

General Information

Gene Name Synonym:

ECE2

Protein Construction:

A DNA sequence encoding the ectodomain of human endothelin converting enzyme 2 isoform A (NP_055508.3) (Gly 199-Trp 883) was fused with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 93 % 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 °C

Predicted N terminal: His

Molecular Mass:

The recombinant human ECE2 consists of 700 amino acids with the predicted molecular mass of 80.2 kDa. As a result of glycosylation, rhECE2 migrates as an approximately 120-125 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 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:

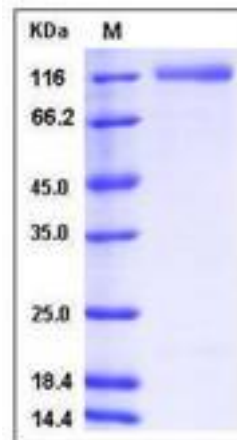
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Endothelin-converting enzyme 2, also known as ECE-2, is a metalloprotease that possesses many properties consistent with it being a neuropeptide-processing enzyme. Endothelin-converting enzymes (ECEs) are the key enzymes in the endothelin (ET) biosynthesis that catalyze the conversion of big ET, the biologically inactive precursor of mature ET. Two enzymes, termed ECE-1 and ECE-2, have been molecularly identified. ECE-2 is found primarily in neural tissues, with high levels of expression in midbrain, cerebellum, hypothalamus, frontal cortex and spinal cord and moderate levels in hippocampus and striatum. ECE-2 is strongly down-regulated in inferior parietal lobe from Alzheimer disease patients (at protein level). ECE-2 converts big endothelin-1 to endothelin-1. It is involved in the processing of various neuroendocrine peptides, including neurotensin, angiotensin I, substance P, proenkephalin-derived peptides, and prodynorphin-derived peptides. ECE-2 may limit beta-amyloid peptide accumulation in brain. It may also have methyltransferase activity. A comparison of residues around the cleavage site revealed that ECE-2 exhibits a unique cleavage site selectivity that is related to but distinct from that of ECE-1.

References

- 1.Lorenzo M.-N., *et al.*,(2001), Human endothelin converting enzyme-2 (ECE2): characterization of mRNA species and chromosomal localization. *Biochim. Biophys. Acta* 1522:46-52.
- 2.Muzny D.M., *et al.*, (2006), The DNA sequence, annotation and analysis of human chromosome 3. *Nature* 440:1194-1198.
- 3.Nagase T., *et al.*,(1998), Prediction of the coding sequences of unidentified human genes. IX. The complete sequences of 100 new cDNA clones from brain which can code for large proteins in vitro. *DNA Res.* 5:31-39.

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