

Active Recombinant Mouse Endothelin Converting Enzyme 1, His-tagged

Cat. No. Ece1-422M **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Recombinant Mouse Ece1 is expressed in Chinese Hamster Ovary cell line, which has a molecule weight of 78 kDa. Gln89 Trp769, with a Nterminal 6His tag.

Species

Mouse

Source

CHO

Description

Endothelin converting enzymes (ECEs) hydrolyze a specific peptide bond of big endothelins to produce active endothelins, some of the most potent vasoconstrictors known. Ece1 is a member of the M13 zinc metallopeptidase family. Other members of the M13 family include thermolysin, neprilysin, Kell, and ECE2. M13 metallopeptidases can be distinguished from other metallopeptidases by their sensitivity to inhibition by phosphoramidon. Ece1 displays pronounced pH dependence in its substrate specificity. The degradation of Substance P by Ece1 in endosomes regulates β arrestin independent ERK2 signaling to prevent cell death in some neuronal cells. Four isoforms of Ece1 are present in humans and mice, all of which encode a Type II integral membrane protein. The four isoforms share a common extracellular catalytic domain, differing in their Nterminal cytoplasmic tail regions. The recombinant mouse Ece1 transmembrane and cytoplasmic tail domains were replaced with a signal sequence, resulting in the secretion of the soluble catalytic ectodomain.

Form

Supplied as a 0.2 μ m filtered solution in Tris, NaCl and ZnCl₂.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

N-terminal Sequence	Gln89
Molecular Weight	78 kDa
Activity	Measured by its ability to cleave the fluorogenic peptide substrate. The specific activity is > 2,250 pmoles/min/μg, as measured under the described conditions. See Activity Assay Protocol.
Purity	>90%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Endotoxin Level	<1.0 EU per 1 μg of the protein by the LAL method.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 6 months from date of receipt, 70 °C as supplied. 3 months, 70 °C under sterile conditions after opening.
Official Symbol	Ece1

GENE INFORMATION

Gene Name	Ece1 endothelin converting enzyme1 [Mus musculus]
Synonyms	Ece1; endothelin converting enzyme 1; ECE-1; ECE-1a; ECE-1b; ECE-1d; AW322500; endothelin-converting enzyme1; endothelin-converting enzyme-1a; endothelin-converting enzyme-1b; endothelin-converting enzyme-1d; EC 3.4.24.71; EC 3.4.24; OTTHUMP00000002724; OTTHUMP00000002725; OTTHUMP00000002726; OTTHUMP00000002727; OTTHUMP00000235323
Gene ID	230857
mRNA Refseq	NM_199307

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Protein Refseq	NP_955011
UniProt ID	Q4PZA2
Chromosome Location	4 D3; 4
Pathway	SIDS Susceptibility Pathways
Function	endopeptidase activity;hydrolase activity; metal ion binding; metalloendopeptidase activity; metallopeptidaseactivity; peptidase activity; protein homodimerization activity

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