

Human CellExp™ ECE1 Extracellular Domain (active), Human Recombinant

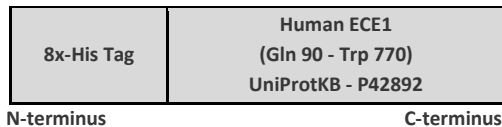
CATALOG #: P1227-10 10 µg
P1227-50 50 µg

ALTERNATE NAMES: Endothelin-converting enzyme 1, ECE-1, EC:3.4.24.71

SOURCE: HEK 293 cells (Gln 90 - Trp 770)

PURITY: > 95% by SDS - PAGE

MOL. WEIGHT: 79 kDa (N-terminal 8xHis tag)



FORMULATION: Lyophilized from 0.22 µm filtered PBS (pH 7.4) with 5% trehalose

RECONSTITUTION: Centrifuge the vial prior to opening. Reconstitute in sterile PBS (pH 7.4). Do not vortex.

STORAGE CONDITIONS: Aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

DESCRIPTION:
The endothelin system consists of three endothelin isopeptides, two G-protein-coupled receptors and several converting enzyme isoforms including Endothelin-Converting Enzyme-1 (ECE-1). ECE-1 is a single-pass type II transmembrane protein with a short cytoplasmic tail and a large extracellular domain (Gln 90 - Trp 770). All isoforms of ECE-1 are expressed in umbilical vein endothelial cells, polynuclear neutrophils, fibroblasts, atrium cardiomyocytes and ventricles. ECE-1 is involved in the proteolytic processing of Endothelin-1, Endothelin-2, and Endothelin-3 to biologically active peptides. It catalyzes the hydrolysis of the 21-Trp-|-Val-22 bond in big endothelin to form endothelin 1. ECE-1 plays a role in the development and progression of various human malignancies including esophageal squamous cell carcinoma and head and neck cancer. ECE1 may also influence other diseases like Hirschsprung disease, cardiac defects, end-stage renal disease and Alzheimer's disease. Inhibition of ECE may therefore represent viable therapeutic opportunity.

SPECIFIC ACTIVITY:

The specific activity of ECE1 was assayed using BioVision's Endothelin Converting Enzyme 1 Activity Assay Kit (Fluorometric) (Catalog # K536). The specific activity is > 500 mU/mg.

UNIT DEFINITION: One unit of ECE-1 is defined as the amount of enzyme that generates 1.0 µmol of substrate (MCA-based peptide) per min under the assay conditions at 37 °C.

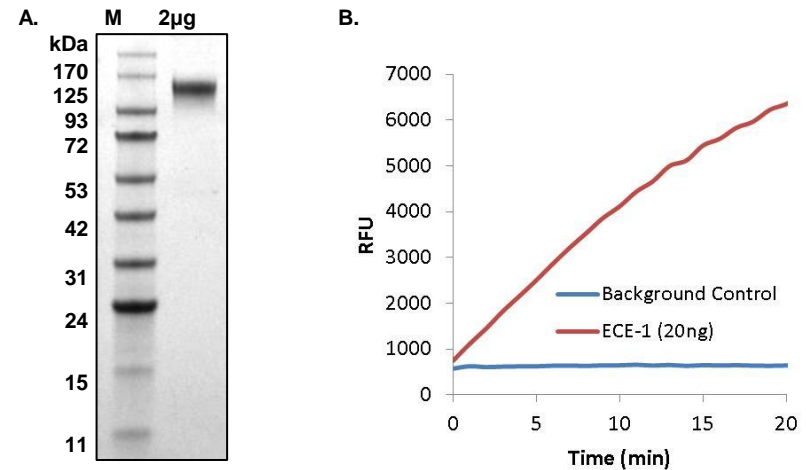


Fig. A. SDS-PAGE (4-20%) of ECE1 Extracellular Domain: 2 µg of the active ECE1 is loaded under reducing conditions and stained with Coomassie Blue. A protein band around 120 kDa can be detected due to glycosylation.

Fig. B. ECE1 Enzyme activity: ECE1 activity was assayed using BioVision's Endothelin Converting Enzyme 1 Activity Assay Kit (Fluorometric) (Catalog # K536). The specific activity is > 500 mU/mg.

RELATED PRODUCTS:

- Endothelin Converting Enzyme 1 Activity Assay Kit (Fluorometric) Cat#: K302
- Endothelin-1 ELISA Kit (Colorimetric) Cat#: K7429
- Angiotensin II (Ang II) (Human) ELISA Kit Cat#: E4527
- Nitric Oxide Colorimetric Assay Kit Cat#: K262
- Nitric Oxide Synthase (NOS) Activity Assay Kit (Fluorometric) Cat#: K206
- Renin Activity Fluorometric Assay Kit Cat#: K800

FOR RESEARCH USE ONLY! Not to be used in humans.

