

ECE-2 Protein, Human (HEK293, His)

Cat. No.:	HY-P75266
Synonyms:	EEF1AKMT4-ECE2 readthrough transcript protein; EEF1AKMT4-ECE2; ECE2
Species:	Human
Source:	HEK293
Accession:	PODPD8/NP_055508.3 (G199-W883)
Gene ID:	110599583
Molecular Weight:	Approximately 120-125 kDa due to the glycosylation.

PROPERTIES

AA Sequence

G V Q Y H R D P S H	S T C L T E A C I R	V A G K I L E S L D	R G V S P C E D F Y
Q F S C G G W I R R	N P L P D G R S R W	N T F N S L W D Q N	Q A I L K H L L E N
T T F N S S S E A E	Q K T Q R F Y L S C	L Q V E R I E E L G	A Q P L R D L I E K
I G G W N I T G P W	D Q D N F M E V L K	A V A G T Y R A T P	F F T V Y I S A D S
K S S N S N V I Q V	D Q S G L F L P S R	D Y Y L N R T A N E	K V L T A Y L D Y M
E E L G M L L G G R	P T S T R E Q M Q Q	V L E L E I Q L A N	I T V P Q D Q R R D
E E K I Y H K M S I	S E L Q A L A P S M	D W L E F L S F L L	S P L E L S D S E P
V V V Y G M D Y L Q	Q V S E L I N R T E	P S I L N N Y L I W	N L V Q K T T S S L
D R R F E S A Q E K	L L E T L Y G T K K	S C V P R W Q T C I	S N T D D A L G F A
L G S L F V K A T F	D R Q S K E I A E G	M I S E I R T A F E	E A L G Q L V W M D
E K T R Q A A K E K	A D A I Y D M I G F	P D F I L E P K E L	D D V Y D G Y E I S
E D S F F Q N M L N	L Y N F S A K V M A	D Q L R K P P S R D	Q W S M T P Q T V N
A Y Y L P T K N E I	V F P A G I L Q A P	F Y A R N H P K A L	N F G G I G V V M G
H E L T H A F D D Q	G R E Y D K E G N L	R P W W Q N E S L A	A F R N H T A C M E
E Q Y N Q Y Q V N G	E R L N G R Q T L G	E N I A D N G G L K	A A Y N A Y K A W L
R K H G E E Q Q L P	A V G L T N H Q L F	F V G F A Q V W C S	V R T P E S S H E G
L V T D P H S P A R	F R V L G T L S N S	R D F L R H F G C P	V G S P M N P G Q L
C E V W			

Biological Activity

Measured by its ability to cleave a peptide substrate, Mca-RPPGFSAFK(Dnp)-OH. Read at excitation and emission wavelengths of 320 nm and 405 nm (top read). The specific activity is 6005.388 pmol/min/μg, as measured under the described conditions.

Appearance

Lyophilized powder.

Formulation

Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.

Endotoxin Level

<1 EU/μg, determined by LAL method.

Reconstitution

It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH₂O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping

Room temperature in continental US; may vary elsewhere.

DESCRIPTION**Background**

The ECE-2 protein is an essential enzyme with dual functionality. Primarily, it plays a crucial role in converting big endothelin-1 to endothelin-1, a biologically active peptide involved in the regulation of vascular tone and blood pressure. In addition to its role in the endothelin system, ECE-2 exhibits potential methyltransferase activity, implying its involvement in the transfer of methyl groups between molecules. Moreover, there is a suggested role for ECE-2 in amyloid-beta processing, indicating a possible association with processes related to neurodegenerative conditions. The multifaceted nature of ECE-2's activities underscores its significance in both cardiovascular physiology, through endothelin processing, and potential contributions to molecular events associated with neurodegenerative disorders (

Caution: Product has not been fully validated for medical applications. For research use only.

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