Data Sheet (Cat.No.TMPY-00644)

TargetMol

Aminopeptidase A Protein, Human, Recombinant (His)

General Information

Synonyms:	APA;glutamyl aminopeptidase;ENPEP;gp160;CD249
Protein Construction:	A DNA sequence encoding the human ENPEP (NP_001968.3) (Arg41-Gly957) was expressed with a polyhistide tag at the N-terminus. Predicted N terminal: His
Species:	Human
Expression Host:	Baculovirus Insect Cells
Accession:	Q07075
Molecular Weight:	107.2 kDa (predicted); 115.5 kDa (reducing conditions)

QC Testing

Biological Activity:	Measured by its ability to cleave the fluorogenic peptide substrate, Glu-7-amido-4-methyl coumarin (Glu-AMC). The specific activity is >2000 pmoles/min/μg.
Purity:	> 90 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Supplied as sterile 20 mM, Tris 500 mM NaCl, 10% glycerol, pH 7.4.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store the product under sterile conditions at -20°C to -80°C. Samples are stable for up to 12 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

Proteins are shipped with blue ice.

Protein Background

ENPEP, also known as aminopeptidase A, is a member of the peptidase M1 family. Members of this family are involved in response to cadmium ion and proteolysis. They located in 6 components and are expressed in 26 plant structures. ENPEP is expressed by epithelial cells of the proximal tubule cells and the glomerulus of the nephron. It also can be detected in a variety of other tissues. ENPEP probably plays a role in regulating growth and differentiation of early B-lineage cells. It also may play a role in the catabolic pathway of the renin-angiotensin system. ENPEP is a zinc-dependent membrane-bound aminopeptidase that catalyzes the cleavage of glutamatic and aspartatic amino acid residues from the N-terminus of polypeptides. It degrades vasoconstricting angiotensin II into angiotensin III and therefore helps to regulate blood pressure.

Reference

Speth RC,et al.(2008) The significance of brain aminopeptidases in the regulation of the actions of angiotensin peptides in the brain. Heart Fail Rev. 13(3):299-309.
Rose JE,et al.(2010) Personalized smoking cessation: interactions between nicotine dose, dependence and quit-success genotype score. Mol Med. 16(7-8):247-53.
Pérez I,et al.(2009) Increased APN/CD13 and acid aminopeptidase activities in head and neck squamous cell carcinoma. Head Neck. 31(10):1335-40.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481