

Human ENPEP / Aminopeptidase A Protein (His Tag)

Catalog Number: 10554-H07B



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

APA; CD249; ENPEP; gp160

Protein Construction:

A DNA sequence encoding the human ENPEP (NP_001968.3) (Arg41-Gly957) was expressed with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio 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.

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 ENPEP consists of 933 amino acids and has a calculated molecular mass of 107.2 kDa. The recombinant protein migrates at an approximately 115.5 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20 mM, Tris 500 mM NaCl, 10 % glycerol, 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:

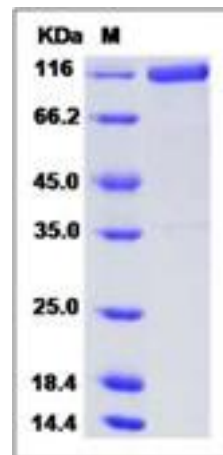
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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.

References

1. 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.
2. 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.
3. 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.

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