

Active Recombinant Full Length Human ANPEP Protein, His&Avi tagged, Biotin Labeled

Cat. No. Anpep-06HFL Lot. No. (See product label)

SPECIFICATION

Product Overview

Active Recombinant Full Length Human APN with 6-His and Avi tag at C-terminus was expressed in Chinese Hamster Ovary cell line.

Species

Human

Source

CHO

ProteinLength

1-967 aa

Conjugation/Label

Biotin

Description

Aminopeptidase N is located in the small-intestinal and renal microvillar membrane, and also in other plasma membranes. In the small intestine aminopeptidase N plays a role in the final digestion of peptides generated from hydrolysis of proteins by gastric and pancreatic proteases. Its function in proximal tubular epithelial cells and other cell types is less clear. The large extracellular carboxyterminal domain contains a pentapeptide consensus sequence characteristic of members of the zinc-binding metalloproteinase superfamily. Sequence comparisons with known enzymes of this class showed that CD13 and aminopeptidase N are identical. The latter enzyme was thought to be involved in the metabolism of regulatory peptides by diverse cell types, including small intestinal and renal tubular epithelial cells, macrophages, granulocytes, and synaptic membranes from the CNS. This membrane-bound zinc metalloprotease is known to serve as a receptor for the HCoV-229E alphacoronavirus

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as well as other non-human coronaviruses. This gene has also been shown to promote angiogenesis, tumor growth, and metastasis and defects in this gene are associated with various types of leukemia and lymphoma.

Form Biotinylated via Avi-tag

Molecular Mass 105 kDa

Bio-activity Measured by its ability to cleave the fluorogenic peptide substrate, Ala-7-amido-4-methylcoumarin (Ala-AMC). The specific activity is >5000 pmol/min/μg. Measured by its binding ability in a functional ELISA. Biotinylated Recombinant Human Aminopeptidase N/CD13 His-tag Avi-tag binds Human Aminopeptidase N/CD13 Antibody with an ED50 of 1.80-18.0 ng/mL.

AASequence

YAQEKNRNAENSATAPTLPGSTSATTATTTTPAVDESKPWNQYRLPKTLIPDSYRVIL
 RPYLTPNNQGLYIFQGNSTVRFTCNQTTDVIHSHKKNLYTLKGNHRVVLRTLDGTPA
 PNIDKTELVERTEYLVVHLQGSLEVEGRQYEMDSQFQGELADDLAGFYRSEYMEGDV
 KKVVATTQMQAADARKSFPCFDEPAMKAMFNITLIYPNNLIALSNMLPKESKPYPED
 PSCTMTEFHSTPKMSTYLLAYIVSEFKNISSVSANGVQIGIWARPSAIDEGQGQDYALN
 VTGPILNFFAQHYNTSYPLPKSDQIALPDFNAGAMENWGLVITYRESSLVFDSQSSSI
 SNKERVVTVIAHELAHQWFGNLVTVAWWDLWLNEGFASYVEYLGADYAEPTWNL
 KDLMLVNDVYRVMVDALASSHPLSSPADEIKTPDQIMELFDSITYSKGASVIRMLSS
 FLTEDLFFKKGLSSYLHTYQYSNTVYLDLWEHLQKAVNQQTAVQPPATVRTIMDRWIL
 QMGFPVITVNTNTGEISQKHFLDSDKSNVTRPSEFNWIWIPIFLKSGQEDHYWLDV
 EKNQSAKFQTSSNEWILLNINVTGYLVNYDENNWKKLQNLQQLTDLVIPVINRAQII
 HDSFNLASAKMIPITLALDNTLFLVKEAEYMPWQAALSSLNIFTLMFDRSEVYGPMK
 RYLKKQVTPLFFYFQNRNTNNWVNRPPTLMEQYNEINAISTACSSGLKECRDLVVELY
 SQWMKNPNNTIHPNLRSTVYCNAIAFGGEEWNF AWEQFRNATLVNEADKL RSA
 LACSKDVWILNRYLSYTLNPDYIRKQDTTSTIISIASNVAGHPLVWDFVRSNWKKLFE
 NYGGGSFSFANLIQGVTRRFSSSEFELQQLEQFKADNSATGFGTGTRALEQALEKTR

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	ANIDWVKENKDAVFKWFTENSS
N-terminal Sequence Analysis	Lys69
Endotoxin	< 0.1 EU/µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie Blue Staining.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 6 months from date of receipt, -20 to -70 centigrade as supplied. 3 months, -20 to -70 centigrade under sterile conditions after opening.
Storage Buffer	Supplied as a 0.2 µm filtered solution in MES and NaCl.
Shipping	The product is shipped with polar packs.
Reference	1. Look, A.T. et al. (1989) J. Clin. Invest. 83:1299. 2. Lendeckel, U. et al. (2023) Biomedicines. 11:724. 3. Olsen, J. et al. (1988) FEBS Lett. 238:307.
Conjugation	Biotin
GENE INFORMATION	
Gene Name	ANPEP alanyl aminopeptidase, membrane [Homo sapiens (human)]
Official Symbol	ANPEP
Synonyms	ANPEP; alanyl aminopeptidase, membrane; APN; AP-M; AP-N; CD13; LAP1; P150; PEPN; hAPN; GP150; aminopeptidase N; alanyl (membrane) aminopeptidase;

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aminopeptidase M; membrane alanyl aminopeptidase; microsomal aminopeptidase; myeloid plasma membrane glycoprotein CD13; EC 3.4.11.2

Gene ID 290

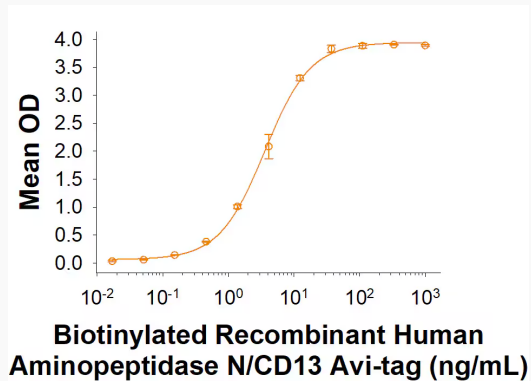
mRNA Refseq NM_001150

Protein Refseq NP_001141


MIM 151530

UniProt ID P15144


Binding Activity



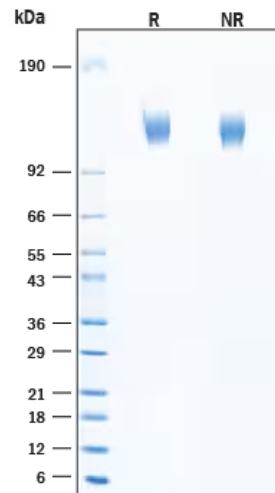
Enzyme Activity


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SDS-PAGE



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