

## Aminopeptidase N/APN Protein, Human (HEK293, His)

<b>Cat. No.:</b>	HY-P7899A
<b>Synonyms:</b>	rHuAminopeptidase N/APN Protein, His; Aminopeptidase N; ANPEP; AP-M; APN; AP-N; CD13 antigen; CD13; CD13APN; PEPN; PEPNhAPN
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	P15144 (K69-K967)
<b>Gene ID:</b>	290
<b>Molecular Weight:</b>	130-140 kDa

### PROPERTIES

#### AA Sequence

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

**Biological Activity** Measured by its ability to cleave the fluorogenic peptide substrate, Ala-7-amido-4-methylcoumarin (Ala-AMC). The specific activity is >2500 pmol/min/μg, as measured under the described conditions.

**Appearance** Lyophilized powder.

**Formulation** Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4-7.3.

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<b>Endotoxin Level</b>	<1 EU/μg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	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.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

## DESCRIPTION

### Background

Aminopeptidase N/APN protein is a broad specificity aminopeptidase that functions as a homotrimer connected by disulfide bonds. It plays a crucial role in the final digestion of peptides derived from protein hydrolysis by gastric and pancreatic proteases. Moreover, it is involved in the processing of various peptides, including peptide hormones like angiotensin III and IV, neuropeptides, and chemokines. Additionally, it may participate in the cleavage of peptides bound to major histocompatibility complex class II molecules in antigen presenting cells. This protein may also contribute to angiogenesis and promote cholesterol crystallization. Furthermore, it acts as a binding partner of the amino acid transporter SLC6A19, potentially regulating its activity and impacting amino acid transport. Notably, Aminopeptidase N/APN protein acts as a receptor for human coronavirus 229E/HCoV-229E, particularly serving as a receptor for the spike glycoprotein of HCoV-229E during infection.

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

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