CNDP1 Protein, Mouse (HEK293, His)

Cat. No.:	HY-P76272
Synonyms:	Beta-Ala-His dipeptidase; CNDP dipeptidase 1; Cn1
Species:	Mouse
Source:	HEK293
Accession:	Q8BUG2 (M1-Y492)
Gene ID:	338403
Molecular Weight:	Approximately 57 kDa.

PROPERTIES

AA Sequence	M F S S A H S G L L E K L F H Y I D L H Q D E F V Q T L K E W V A I E S D S V Q P V P R L R Q K L F Q M M A L A A D K L R N L G A G V E S I D L G S Q Q M P D G Q S L P I P P I L L A E L G S D P E K P T V C F Y G H L D V Q P A Q K D D G W L T D P Y T L T E V D G K L Y G R G A T D N K G P V L A W I N A V S T F R A L Q Q D L P V N I K F I L E G M E E A G S I A L E E L V M R E K D H F F S S V D Y I V I S D N L W L S Q R K P A L T Y G T R G N C Y F T V E V K C R D Q D F H S G T F G G I L N E P M A D L V A L L G S L V D S S G H I L I P G I Y D Q M A P I T E G E K T M Y K N I D M D L E E Y Q N I N Q V E K F L F D T K E E L L M H L W R Y P S L S I H G I E G A F D E P G T K T V I P G R V L G K F S I R L V P T M S P S V V E K Q V T Q H L E A V F S K R N S F N K M A V S M V L G L H P W T A N V N D T Q Y L A A Q R T I K T V F G V N P D M I R D G S T I P I A K I F Q A I T Q K S V M M L P L G A V D D G E H S Q N E K I N R W N Y I Q G S K L F A A F F L E L S K Q H S G H Q M P S S V Y
Biological Activity	Measured by its ability to cleave 2mM carnosine (beta-Ala-L-His) in a two-step assay for 30 min at 25°C. The specific activity is 3557.59 pmol/min/μg.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4, 5% trehalose and 5% mannitol.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
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 CNDP1 protein plays a crucial role in cellular processes by catalyzing the hydrolysis of peptide bonds in Xaa-His dipeptides, exhibiting the highest enzymatic activity towards substrates such as carnosine (beta-alanyl-L-histidine) and anserine (beta-alanyl-3-methyl-histidine). Through its peptide bond hydrolysis activity, CNDP1 contributes to the cleavage of dipeptides, particularly those involving histidine, and is particularly efficient in processing carnosine and anserine. This enzymatic specificity underscores the significance of CNDP1 in regulating the breakdown of specific dipeptides and suggests its potential role in modulating cellular levels of bioactive peptides derived from such hydrolytic reactions.

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