

Recombinant Human CNDP1 Protein, His-tagged

Cat. No. CNDP1-382H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human CNDP1, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.
Species	Human
Source	Insect Cells
Description	CNDP1, also known as beta-Ala-His dipeptidase, belongs to the peptidase M20A family. The shortest allelic form (CNDP1 Mannheim) was more common in the absence of nephropathy and was associated with lower serum carnosinase levels. Carnosine inhibited the increased production of fibronectin and collagen type VI in podocytes and the increased production of TGF-beta in mesangial cells. Diabetic patients with the CNDP1 Mannheim variant are less susceptible for nephropathy. Carnosine protects against the adverse effects of high glucose levels on renal cells.
Form	Liquid. In Phosphate Buffered Saline (pH 7.4) containing 10% glycerol.
Molecular Mass	54.9kDa (489aa)50-70KDa (SDS-PAGE under reducing conditions.)
AA Sequence	SPSPPPALLE KVFQYIDLHQ DEFVQTLKEW VAIESDSVQP VPRFRQELFR MMAVAADTLQ RLGARVASVD MGPQQLPDGQ SLPIPPVILA ELGSDPTKGT VCFYGHLDVQ PADRGDGLWT DPYVLTEVDG KLYGRGATDN KGPVLAWINA VSAFRALEQD LPVNIKFIIE GMEEAGSVAL EELVEKEKDR FFSGVDYIVI SDNLWISQRK PAITYGTRGN SYFMVEVKCR DQDFHSGTFG GILHEPMADL VALLGSLVDS SGHILVPGIY DEVVPLTEEE INTYKAIHLD LEEYRNSSRV

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EKFLFDTKEE ILMHLWRYPS LSIHGIEGAF DEPGTKVIP GRVIGKFSIR
 LVPHMNVSAV EKQVTRHLED VFSKRNSSNK MVVSMTLGLH PWIANIDDTQ
 YLAAKRAIRT VFGTEPDMIR DGSTIPIAKM FQEIVHKSVV LIPLGAVDDG
 EHSQNEKINR WNYIEGTKLF AAFLEMAQL HLEHHHHHH

Endotoxin < 1.0 EU per 1 microgram of protein (determined by LAL method)

Purity >95% by SDS - PAGE

Storage Can be stored at +4 centigrade short term (1-2 weeks). For long term storage, aliquot and store at -20 centigrade or -70 centigrade. Avoid repeated freezing and thawing cycles.

Concentration 0.25mg/ml (determined by Absorbance at 280nm)

GENE INFORMATION

Gene Name [CNDP1 carnosine dipeptidase 1 \(metallopeptidase M20 family\) \[Homo sapiens \]](#)

Official Symbol [CNDP1](#)

Synonyms CNDP1; carnosine dipeptidase 1 (metallopeptidase M20 family); beta-Ala-His dipeptidase; carnosinase 1; CN1; CPGL2; glutamate carboxypeptidase like protein 2; HsT2308; MGC10825; serum carnosinase; CNDP dipeptidase 1; glutamate carboxypeptidase-like protein 2; MGC102737; MGC142072;

Gene ID [84735](#)

mRNA Refseq [NM_032649](#)

Protein Refseq [NP_116038](#)

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MIM	609064
UniProt ID	Q96KN2
Chromosome Location	18q22.3
Pathway	Arginine and proline metabolism, organism-specific biosystem; Arginine and proline metabolism, conserved biosystem; Histidine metabolism, organism-specific biosystem; Histidine metabolism, conserved biosystem; Metabolic pathways, organism-specific biosystem; beta-Alanine metabolism, organism-specific biosystem; beta-Alanine metabolism, conserved biosystem;
Function	carboxypeptidase activity; dipeptidase activity; metal ion binding; metallopeptidase activity; peptidase activity; tripeptidase activity;

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