

# Recombinant human Carnosine Dipeptidase 1/CNDP1 protein

Catalog Number: ATGP3227

## PRODUCT INFORMATION

---

### Expression system

Baculovirus

### Domain

27-507aa

### UniProt No.

Q96KN2

### NCBI Accession No.

NP\_116038.4

### Alternative Names

Beta-Ala-His dipeptidase, CNDP dipeptidase 1, Carnosine dipeptidase 1, Glutamate carboxypeptidase-like protein 2, Serum carnosinase, CN1, CPGL2, Carnosinase 1

## PRODUCT SPECIFICATION

---

### Molecular Weight

54.9 kDa (489aa)

### Concentration

0.25mg/ml (determined by absorbance at 280nm)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 95% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Tag

His-Tag

### Application

SDS-PAGE

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

---

### 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

# Recombinant human Carnosine Dipeptidase 1/CNDP1 protein

Catalog Number: ATGP3227

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. Recombinant human CNDP1, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

## Amino acid Sequence

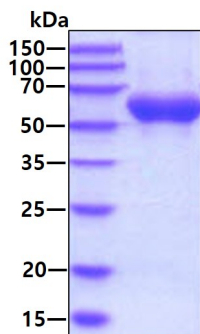
SPSPPPALLE KVFQYIDLHQ DEFVQTLKEW VAIESDSVQP VPRFRQELFR MMAVAADTLQ RLGARVASVD MGPQQLPDGQ  
SLPIPPVILA ELGSDPTKGT VCFYGHLDVQ PADRGDGWLT DPYVLTEVDG KLYGRGATDN KGPVLAWINA VSAFRALEQD  
LPVNIKFIIE GMEEAGSVAL EELVEKEKDR FFSGVYDVI SDNLWISQRK PAITYGTRGN SYFMVEVKCR DQDFHSGTFG  
GILHEPMADL VALLGSLVDS SGHILVPGIY DEVVPLTEEE INTYKAIHLD LEEYRNSSRV EKFLFDTKEE ILMHLWRYP  
LSIHGIEGAF DEPGTKVIP GRVIGKFSIR LVPHMNVSAV EKQVTRHLED VFSKRNSSNK MVVSMTLGLH PWIANIDDTQ  
YLAAKRAIRT VFGTEPDMIR DGSTIPIAKM FQEIVHKSIV LIPLGAVDDG EHSQNEKINR WNYIEGTKLF AAFLEMAQL  
H<LEHHHHHH>

## General References

Kurashige M., et al. (2013) PLoS ONE 8(1):E54064.  
Ahluwalia TS., et al. (2011) Diabetologia 54(9):2295-2302.

## DATA

### SDS-PAGE



3 $\mu$ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain.