

## Recombinant Mouse CNDP2/CPGL/PEPA Protein (His Tag)

Catalog No. PKSM040782

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

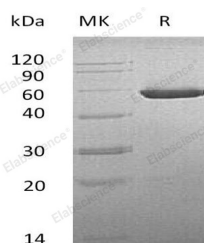
### Description

<b>Synonyms</b>	CNDP2;CNDP dipeptidase 2;Cytosolic non-specific dipeptidase;Glutamate carboxypeptidase-like protein 1;Dip-2;Pep-1;Pep1
<b>Species</b>	Mouse
<b>Expression Host</b>	Baculovirus-Insect Cells
<b>Sequence</b>	Met 1-Asn 475
<b>Accession</b>	NP_075638.2
<b>Calculated Molecular Weight</b>	54.0 kDa
<b>Tag</b>	C-His
<b>Bioactivity</b>	Measured by its ability to cleave carnosine ( $\beta$ -Ala-His) in a two step assay (mouse CNDP2 concentration 10 $\mu$ g/ml). The specific activity is > 40 pmoles/min/ $\mu$ g.

### Properties

<b>Purity</b>	> 97 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per $\mu$ g of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile 50mM Tris, 100mM NaCl, 0.5mM PMSF, 10% glycerol, pH 8.5 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 97 % as determined by reducing SDS-PAGE.

### Background

#### For Research Use Only

Cytosolic non-specific dipeptidase, also known as CNDP dipeptidase 2, Glutamate carboxypeptidase-like protein 1, Peptidase A, CNDP2 and CN2, is a cytoplasm protein which belongs to the peptidase M20A family. CNDP2 / CPGL is a cytosolic enzyme that can hydrolyze carnosine to yield L-histidine and beta-alanine. CNDP2 / CPGL hydrolyzes a variety of dipeptides including L-carnosine but has a strong preference for Cys-Gly. It may play a role as tumor suppressor in hepatocellular carcinoma (HCC) cells. Isoform1 of CNDP2 / CPGL is ubiquitously expressed with higher levels in kidney and liver (at protein level). Isoform2 of CNDP2 / CPGL is expressed in fetal tissues, it is only expressed in adult liver and placental tissues. CNDP2 / CPGL is highly expressed in the histaminergic neurons in the tuberomammillary nucleus, implying that it may supply histidine to histaminergic neurons for histamine synthesis.