

### **KD-Validated Anti-CNDP2 Mouse Monoclonal Antibody**

Mouse monoclonal antibody Catalog # AGI2009

### **Specification**

### **KD-Validated Anti-CNDP2 Mouse Monoclonal Antibody - Product Information**

Application
Primary Accession
Reactivity
Clonality

Isotype Calculated

Calculated MW Gene Name Aliases WB Q96KP4

Rat, Human, Mouse

Monoclonal Mouse IgG1

Predicted, 53 kDa, observed, 53 kDa KDa

CNDP2

CNDP2; Carnosine Dipeptidase 2; CPGL; CN2; Peptidase A; HsT2298; PEPA; CNDP Dipeptidase 2 (Metallopeptidase M20 Family); Glutamate Carboxypeptidase-Like

Protein 1; Cytosolic Non-Specific Dipeptidase; Cytosolic Nonspecific Dipeptidase; Carnosine Dipeptidase II; Threonyl Dipeptidase; Carnosinase-2; FLJ10830; HEL-S-13; Epididymis Secretory

Protein Li 13; CNDP Dipeptidase; EC

3.4.13.18

Immunogen Recombinant protein of human CNDP2

#### KD-Validated Anti-CNDP2 Mouse Monoclonal Antibody - Additional Information

Gene ID **55748** 

**Other Names** 

Cytosolic non-specific dipeptidase, 3.4.13.18, CNDP dipeptidase 2, Glutamate carboxypeptidase-like protein 1, Peptidase A, Threonyl dipeptidase, CNDP2 {ECO:0000303|PubMed:25964343, ECO:0000312|HGNC:HGNC:24437}

# **KD-Validated Anti-CNDP2 Mouse Monoclonal Antibody - Protein Information**

Name CNDP2 {ECO:0000303|PubMed:25964343, ECO:0000312|HGNC:HGNC:24437}

### **Function**

Catalyzes the peptide bond hydrolysis in dipeptides, displaying a non-redundant activity toward threonyl dipeptides (By similarity). Mediates threonyl dipeptide catabolism in a tissue- specific way (By similarity). Has high dipeptidase activity toward cysteinylglycine, an intermediate metabolite in glutathione metabolism (PubMed:<a href="http://www.uniprot.org/citations/12473676" target="\_blank">12473676</a>, PubMed:<a href="http://www.uniprot.org/citations/19346245" target="\_blank">19346245</a>). Metabolizes N-lactoyl-amino acids, both through hydrolysis to form lactic acid and amino acids, as well as through their formation by reverse proteolysis (PubMed:<a href="http://www.uniprot.org/citations/25964343" target="\_blank">25964343</a>). Plays a role in the regulation of cell cycle arrest and apoptosis (PubMed:<a



href="http://www.uniprot.org/citations/17121880" target="\_blank">17121880</a>, PubMed:<a href="http://www.uniprot.org/citations/24395568" target="\_blank">24395568</a>).

# **Cellular Location** Cytoplasm

#### **Tissue Location**

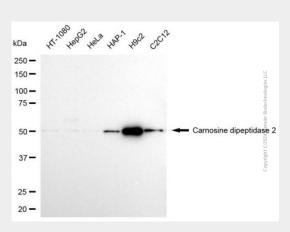
[Isoform 1]: Ubiquitously expressed with higher levels in kidney and liver (at protein level). Expressed in peripheral blood leukocytes (PubMed:12473676). Expressed in gastric mucosa and down-regulated in gastric cancer mucosal tissues (at protein level) (PubMed:24395568).

# **KD-Validated Anti-CNDP2 Mouse Monoclonal Antibody - Protocols**

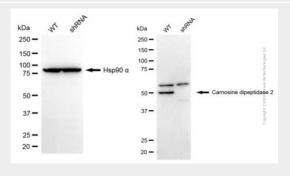
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

# KD-Validated Anti-CNDP2 Mouse Monoclonal Antibody - Images



Western blotting analysis using anti-carnosine dipeptidase 2 antibody (Cat#AGI2009). Total cell lysates (30  $\mu$ g) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-carnosine dipeptidase 2 antibody (Cat#AGI2009, 1:2,500) and HRP-conjugated goat anti-mouse secondary antibody respectively.







Tel: 858.875.1900 Fax: 858.875.1999

Western blotting analysis using anti-carnosine dipeptidase 2 antibody (Cat#AGI2009). Carnosine dipeptidase 2 expression in wild-type (WT) and carnosine dipeptidase 2 (CNDP2) shRNA knockdown (KD) HeLa cells with 30  $\mu g$  of total cell lysates. Hsp90  $\alpha$  serves as a loading control. The blot was incubated with anti-carnosine dipeptidase 2 antibody (Cat#AGI2009, 1:1,000) and HRP-conjugated goat anti-mouse secondary antibody respectively.