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KD-Validated Anti-CNDP2 Mouse Monoclonal Antibody

Mouse monoclonal antibody
Catalog # AGI2009

Product Information

Application	WB
Primary Accession	Q96KP4
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Mouse IgG1
Clone Names	24GB7930
Calculated MW	52878
Gene Name	CNDP2
Aliases	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

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}

Protein Information

Name	CNDP2 {ECO:0000303|PubMed:25964343, ECO:0000312|HGNC:HGNC:24437}
Function	Cytosolic metallodipeptidase with broad substrate specificity that catalyzes the hydrolysis of amide bonds in dipeptides and pseudopeptides (PubMed:12473676, PubMed:19346245, PubMed:25964343). Substrates include L-cysteinylglycine, an intermediate metabolite of the gamma-glutamyl cycle of glutathione metabolism (PubMed:19346245, PubMed:25964343). Can also hydrolyze threonyl-containing dipeptides (By similarity). Upon physiological conditions of amino acids and lactate excess can also catalyze a reverse proteolysis reaction, generating N- [(S)-lactoyl]-L-phenylalanine and possibly other N-lactoyl-amino acids which it can also hydrolyze in vitro. N-[(S)-lactoyl]-L-phenylalanine is an exercise-induced metabolite that influences food intake and systemic energy balance (PubMed:25964343). Carnosine is probably not a physiological substrate and L-homocarnosine is not a substrate for this enzyme (PubMed:12473676). Plays a role in the

	regulation of cell cycle arrest and apoptosis (PubMed:17121880, PubMed:24395568).
Cellular Location	Cytoplasm, cytosol
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).

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