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DPEP1 Antibody(N-term) Blocking peptide

Synthetic peptide
Catalog # BP19662a

Specification

DPEP1 Antibody(N-term) Blocking peptide - Product Information

Primary Accession P16444

DPEP1 Antibody(N-term) Blocking peptide - Additional Information

Gene ID 1800

Other Names
Dipeptidase 1, Dehydropeptidase-I, Microsomal dipeptidase, Renal dipeptidase, hRDP, DPEP1, MDP, RDP

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

DPEP1 Antibody(N-term) Blocking peptide - Protein Information

Name DPEP1

Synonyms MDP {ECO:0000303|PubMed:2303490}, RDP

Function
Hydrolyzes a wide range of dipeptides including the conversion of leukotriene D4 to leukotriene E4 (PubMed:2303490, PubMed:6334084, PubMed:31442408, PubMed:32325220). Hydrolyzes cystinyl- bis-glycine (cys-bis-gly) formed during glutathione degradation (PubMed:32325220). Possesses also beta lactamase activity and can hydrolyze the beta-lactam antibiotic imipenem (PubMed:6334084, PubMed:32325220).

Cellular Location
Apical cell membrane; Lipid-anchor, GPI-anchor. Cell projection, microvillus membrane; Lipid-anchor, GPI-anchor. Note=Brush border membrane {ECO:0000250|UniProtKB:P31429}

Tissue Location
Expressed in lung and kidneys.

DPEP1 Antibody(N-term) Blocking peptide - Protocols

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

- Blocking Peptides

DPEP1 Antibody(N-term) Blocking peptide - Images

DPEP1 Antibody(N-term) Blocking peptide - Background

DPEP1 (EC 3.4.13.11) is a kidney membrane enzyme thathydrolyzes a variety of dipeptides and is implicated in renalmetabolism of glutathione and its conjugates, e.g., leukotriene D4(Kozak and Tate, 1982 [PubMed 6122685]). DPEP1 is responsible forhydrolysis of the beta-lactam ring of antibiotics, such as penemand carbapenem (Campbell et al., 1984 [PubMed 6334084]). Earlier,beta-lactamase enzymes were thought to occur only in bacteria,where their probable function was in protecting the organismsagainst the action of beta-lactam antibiotics. These antibioticsexhibit selective toxicity against bacteria but virtual inertnessagainst many eukaryotic cells (Adachi et al., 1990 [PubMed2303490]).

DPEP1 Antibody(N-term) Blocking peptide - References

Nan, H., et al. J. Invest. Dermatol. 129(9):2250-2257(2009)Pare, G., et al. Circ Cardiovasc Genet 2(2):142-150(2009)Nitanai, Y., et al. J. Mol. Biol. 321(2):177-184(2002)Kera, Y., et al. Comp. Biochem. Physiol. B, Biochem. Mol. Biol. 123(1):53-58(1999)Satoh, S., et al. Biotechnol. Prog. 10(2):134-140(1994)