

DPEP1 Antibody(N-term) Blocking peptide
Synthetic peptide
Catalog # BP19662a**Specification**

DPEP1 Antibody(N-term) Blocking peptide - Product InformationPrimary 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 that hydrolyzes a variety of dipeptides and is implicated in renal metabolism of glutathione and its conjugates, e.g., leukotriene D₄ (Kozak and Tate, 1982 [PubMed 6122685]). DPEP1 is responsible for hydrolysis of the beta-lactam ring of antibiotics, such as penicillin and 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 organisms against the action of beta-lactam antibiotics. These antibiotics exhibit selective toxicity against bacteria but virtual inertness against many eukaryotic cells (Adachi et al., 1990 [PubMed 2303490]).

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) Nitani, 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)