

PPT1 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP2538a**Specification**

PPT1 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession [P50897](#)
Other Accession [PPT1_HUMAN](#)

PPT1 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 5538

Other Names

Palmitoyl-protein thioesterase 1, PPT-1, Palmitoyl-protein hydrolase 1, PPT1, PPT

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP2538a](/product/products/AP2538a) was selected from the N-term region of human PPT1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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.

PPT1 Antibody (N-term) Blocking Peptide - Protein Information

Name PPT1

Synonyms CLN1 {ECO:0000303|PubMed:19941651}, PPT

Function

Removes thioester-linked fatty acyl groups such as palmitate from modified cysteine residues in proteins or peptides during lysosomal degradation. Prefers acyl chain lengths of 14 to 18 carbons (PubMed: <http://www.uniprot.org/citations/8816748>).

Cellular Location

Lysosome. Secreted {ECO:0000250|UniProtKB:P45478}

PPT1 Antibody (N-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

PPT1 Antibody (N-term) Blocking Peptide - Images

PPT1 Antibody (N-term) Blocking Peptide - Background

Palmitoyl-protein thioesterase-1 (PPT1) is a lysosomal hydrolase that removes long-chain fatty acyl groups from modified cysteine residues in proteins. Mutations in PPT1 have been found to cause the infantile form of neuronal ceroid lipofuscinosis (INCL), and an animal model has been developed.¹ The deduced PPT2 protein contains 302 amino acids, including a 27-amino acid leader peptide, a sequence motif characteristic of many thioesterases and lipases, and 5 potential N-linked glycosylation sites.² PPT2 shares 18% amino acid identity with PPT1. Northern blot analysis detected a predominant 2.0-kb PPT2 transcript in the human tissues examined, with the highest expression in skeletal muscle; variable amounts of 2.8- and 7.0-kb transcripts were also observed. Recombinant PPT2, like PPT1, possesses thioesterase activity and localizes to the lysosome. Since PPT2 could not substitute for PPT1 in correcting the metabolic defect in INCL cells and was unable to remove palmitate groups from palmitoylated proteins that are routinely used as substrates for PPT1 it has been postulated that PPT2 possesses a different substrate specificity than PPT1.

PPT1 Antibody (N-term) Blocking Peptide - References

Calero, G., et al., J. Biol. Chem. 278(39):37957-37964 (2003). Hofmann, S.L., et al., Curr. Mol. Med. 2(5):423-437 (2002). Weimer, J.M., et al., Neuromolecular Med. 1(2):111-124 (2002). Lu, J.Y., et al., Proc. Natl. Acad. Sci. U.S.A. 93(19):10046-10050 (1996). Crews, C.M., et al., Proc. Natl. Acad. Sci. U.S.A. 93(9):4316-4319 (1996).