SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

PRODUCT INFORMATION

PPT1 (human, recombinant)

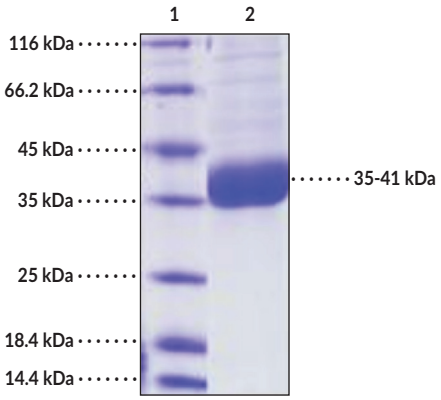
Item No. 38066

Overview and Properties

Synonyms:	Palmitoyl-protein Hydrolase 1, Palmitoyl-protein Thioesterase 1, CLN1
Source:	Recombinant human C-terminal His-tagged PPT1 expressed in HEK293 cells
Amino Acids:	28-306
Uniprot No.:	P50897-1
Molecular Weight:	32.7 kDa
Storage:	-80°C (as supplied)
Stability:	≥1 year
Purity:	≥90% estimated by SDS-PAGE
Supplied in:	Lyophilized from sterile PBS, pH 7.4
Endotoxin Testing:	<1.0 EU/µg, determined by the LAL endotoxin assay

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: MW Markers
Lane 2: PPT1

SDS-PAGE Analysis of PPT1. This protein has a calculated molecular weight of 32.7 kDa. It has an apparent molecular weight of approximately 35-41 kDa by SDS-PAGE due to glycosylation.

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

PRODUCT INFORMATION

Description

Palmitoyl-protein thioesterase 1 (PPT1) is a lysosomal hydrolase involved in removing palmitic acid (Item No. 10006627) from post-translationally modified proteins prior to their degradation.[1] It is mainly expressed in the brain but is also found in visceral macrophages from liver, lung, and bowel tissues.[2] PPT1 depalmitoylates proteins in cells undergoing autophagy, and PPT1 activity is important for axon outgrowth, neurite extension, and dendritic spine morphology.[1] Knockout of *PPT1* decreases tumor growth in a mouse xenograft model, and high expression of *PPT1* is associated with poor overall survival in several cancers.[3] Mutations in *PPT1* cause infantile neuronal ceroid lipofuscinoses (INCL), an encephalopathy characterized by granular deposits in neurons, vision loss, seizures, mental deterioration, and brain death.[4,5] Cayman's PPT1 (human, recombinant) protein consists of 290 amino acids, has a calculated molecular weight of 32.7 kDa, and a predicted N-terminus of Asp28 after signal peptide cleavage. By SDS-PAGE, under reducing conditions, the apparent molecular mass is 35-41 kDa due to glycosylation.

References

1. Koster, K.P. and Yoshii, A. Depalmitoylation by palmitoyl-protein thioesterase 1 in neuronal health and degeneration. *Front. Synaptic Neurosci.* **11**, 25 (2019).
2. Margraf, L.R., Boriack, R.L., Routheut, A.A., *et al.* Tissue expression and subcellular localization of CLN3, the Batten disease protein. *Mol. Genet. Metab.* **66(4)**, 283-289 (199
3. Rebecca, V.W., Nicastri, M.C., Fennelly, C., *et al.* PPT1 promotes tumor growth and is the molecular target of chloroquine derivatives in cancer. *Cancer Discov.* **9(2)**, 220-229 (2019).
4. Vesa, J., Hellsten, E., Verkruyse, L.A., *et al.* Mutations in the palmitoyl protein thioesterase gene causing infantile neuronal ceroid lipofuscinosis. *Nature* **376(6541)**, 584-587 (1995).
5. Lu, J.-Y., Verkruyse, L.A., and Hofmann, S.L. Lipid thioesters derived from acylated proteins accumulate in infantile neuronal ceroid lipofuscinosis: Correction of the defect in lymphoblasts by recombinant palmitoyl-protein thioesterase. *Proc. Natl. Acad. Sci. USA* **93(19)**, 10046-10050 (1996).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM