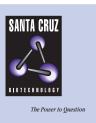
# SANTA CRUZ BIOTECHNOLOGY, INC.

# PPT2 (C-18): sc-130238



#### BACKGROUND

PPT2 (palmitoyl-protein thioesterase 2), also known as G14, is a 302 amino acid glycosylated protein that localizes to the lysosome and belongs to the palmitoyl-protein thioesterase family. Expressed throughout the body with highest levels in skeletal muscle, PPT2 functions to remove thioester-linked fatty acyl groups from a variety of substrates, including S-palmitoyl-CoA, thereby playing an important role in lipid metabolism. PPT2 operates at an optimal pH of 7 and exhibits the highest activity for the acyl groups on myristic and palmitic acids, with lower levels of activity toward other short- and long-chain acyl substrates, PPT2 exists as two isoforms, one of which is expressed at low levels and is catalytically inactive.

# REFERENCES

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- 2. Aguado, B. and Campbell, R.D. 1999. Characterization of a human MHC class III region gene product with S-thioesterase activity. Biochem. J. 341: 679-689.
- 3. Soyombo, A.A., Yi, W. and Hofmann, S.L. 1999. Structure of the human palmitoyl-protein thioesterase-2 gene (PPT2) in the major histocompatibility complex on chromosome 6p21.3. Genomics 56: 208-216.
- Gupta, P., Soyombo, A.A., Atashband, A., Wisniewski, K.E., Shelton, J.M., Richardson, J.A., Hammer, R.E. and Hofmann, S.L. 2001. Disruption of PPT1 or PPT2 causes neuronal ceroid lipofuscinosis in knockout mice. Proc. Natl. Acad. Sci. USA 98: 13566-13571.
- 5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 603298. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Calero, G., Gupta, P., Nonato, M.C., Tandel, S., Biehl, E.R., Hofmann, S.L. and Clardy, J. 2003. The crystal structure of palmitoyl protein thioesterase-2 (PPT2) reveals the basis for divergent substrate specificities of the two lysosomal thioesterases, PPT1 and PPT2. J. Biol. Chem. 278: 37957-37964.
- Gupta, P., Soyombo, A.A., Shelton, J.M., Wilkofsky, I.G., Wisniewski, K.E., Richardson, J.A. and Hofmann, S.L. 2003. Disruption of PPT2 in mice causes an unusual lysosomal storage disorder with neurovisceral features. Proc. Natl. Acad. Sci. USA 100: 12325-12330.

#### CHROMOSOMAL LOCATION

Genetic locus: PPT2 (human) mapping to 6p21.32.

#### **STORAGE**

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

#### PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

# SOURCE

PPT2 (C-18) is a purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of PPT2 of human origin.

## PRODUCT

Each vial contains 100  $\mu g$  lgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

# **APPLICATIONS**

PPT2 (C-18) is recommended for detection of PPT2 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PPT2 siRNA (h): sc-95460, PPT2 siRNA (m): sc-152428, PPT2 shRNA Plasmid (h): sc-95460-SH, PPT2 shRNA Plasmid (m): sc-152428-SH, PPT2 shRNA (h) Lentiviral Particles: sc-95460-V and PPT2 shRNA (m) Lentiviral Particles: sc-152428-V.

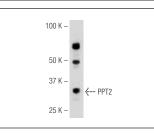
Molecular Weight of PPT2: 34 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

# **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

## DATA



PPT2 (C-18): sc-130238. Western blot analysis of PPT2 expression in Hep G2 whole cell lysate.

#### **RESEARCH USE**

For research use only, not for use in diagnostic procedures.