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Anti-PPT1 Antibody Picoband™ (monoclonal, 10F3)

Catalog # ABO14860

Specification

Anti-PPT1 Antibody Picoband™ (monoclonal, 10F3) - Product Information

Application	**WB, IHC, FC**
Primary Accession	P50897
Host	**Mouse**
Isotype	**Mouse IgG2b**
Reactivity	**Human**
Clonality	**Monoclonal**
Format	**Lyophilized**

Description
Anti-PPT1 Antibody Picoband™ (monoclonal, 10F3) . Tested in Flow Cytometry, IHC, WB applications. This antibody reacts with Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500 µg/ml.

Anti-PPT1 Antibody Picoband™ (monoclonal, 10F3) - Additional Information

Gene ID 5538

Other Names
Palmitoyl-protein thioesterase 1, PPT-1, 3.1.2.22, Palmitoyl-protein hydrolase 1, PPT1, CLN1 {ECO:0000303|PubMed:19941651}, PPT

Calculated MW
34 kDa KDa

Application Details
Western blot, 0.1-0.5 µg/ml
 Immunohistochemistry (Paraffin-embedded Section), 0.5-1 µg/ml
 Flow Cytometry, 1-3 µg/1x10^6 cells

Subcellular Localization
Lysosome. Secreted.

Protein Name
Palmitoyl-protein thioesterase 1

Contents
Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the C-terminus of human PPT1, different from the related mouse and rat sequences by four amino acids.

Cross Reactivity
No cross-reactivity with other proteins.

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Storage	**Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.**

Anti-PPT1 Antibody Picoband™ (monoclonal, 10F3) - 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:8816748).

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

Anti-PPT1 Antibody Picoband™ (monoclonal, 10F3) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-PPT1 Antibody Picoband™ (monoclonal, 10F3) - Images

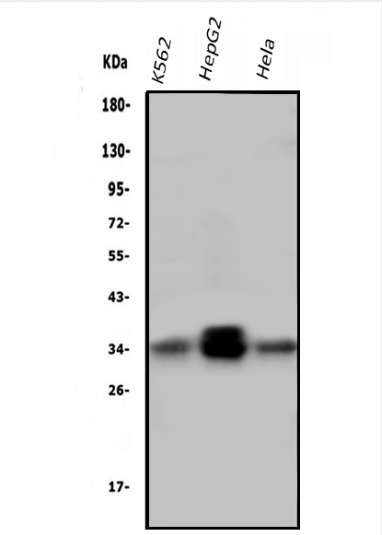

Figure 1. Western blot analysis of PPT1 using anti-PPT1 antibody (M02690).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: human K562 whole cell lysates,
Lane 2: human HepG2 whole cell lysates,
Lane 3: human Hela whole cell lysates.
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-PPT1 antigen affinity purified monoclonal antibody (Catalog # M02690) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for PPT1 at approximately 34KD. The expected band size for PPT1 is at 34KD.

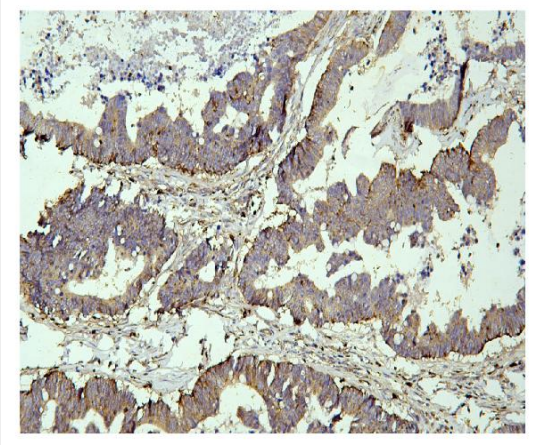

Figure 2. IHC analysis of PPT1 using anti PPT1 antibody (M02690).
PPT1 was detected in paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 µg/ml mouse anti-PPT1 Antibody (M02690) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

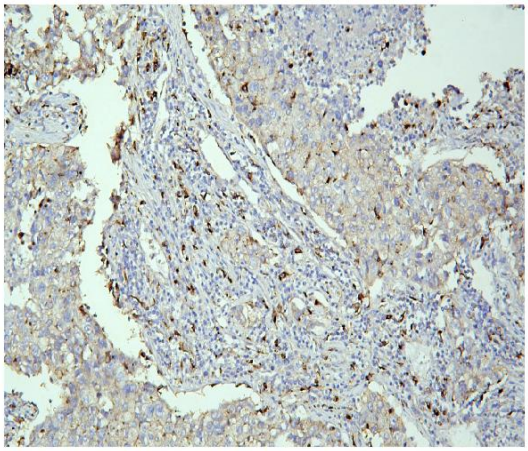

Figure 3. IHC analysis of PPT1 using anti PPT1 antibody (M02690).
PPT1 was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue

section was blocked with 10% goat serum. The tissue section was then incubated with 1 µg/ml mouse anti-PPT1 Antibody (M02690) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

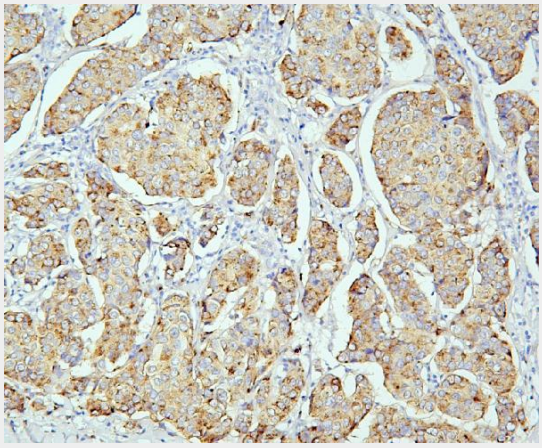

Figure 4. IHC analysis of PPT1 using anti PPT1 antibody (M02690).
PPT1 was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 µg/ml mouse anti-PPT1 Antibody (M02690) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

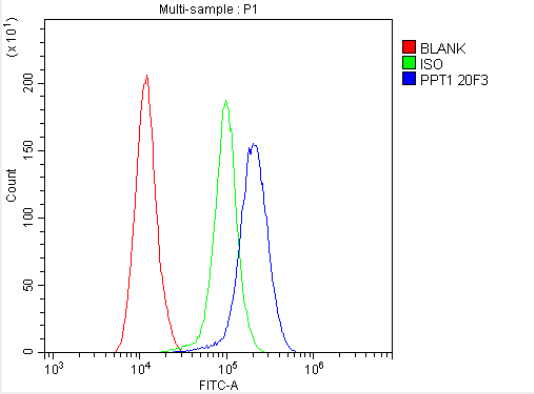

Figure 5. Flow Cytometry analysis of THP-1 cells using anti-PPT1 antibody (M02690).
Overlay histogram showing THP-1 cells stained with M02690 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-PPT1 Antibody (M02690, 1 µg/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 µg/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 µg/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

Anti-PPT1 Antibody Picoband™ (monoclonal, 10F3) - Background

Palmitoyl-protein thioesterase 1 (PPT-1), also known as palmitoyl-protein hydrolase 1, is an enzyme that in humans is encoded by the PPT1 gene. PPT-1 is a member of the palmitoyl protein thioesterase family. The protein encoded by this gene is a small glycoprotein involved in the catabolism of lipid-modified proteins during lysosomal degradation. The encoded enzyme removes thioester-linked fatty acyl groups such as palmitate from cysteine residues. Defects in this gene are a cause of infantile neuronal ceroid lipofuscinosis 1 (CLN1, or INCL) and neuronal ceroid

lipofuscinosis 4 (CLN4). Two transcript variants encoding different isoforms have been found for this gene.