

## Basic Information

Product Name	Anti-PPT1 Antibody	
Gene Name	PPT1	
Source	Rabbit	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, IHC-F, ICC, FCM	
Contents	500 ug/ml antibody with PBS , 0.02% NaN3 , 1 mg BSA and 50% glycerol.	
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human PPT1 (191-224aa KEDVYRNHSIFLADINQERGINESYKKNLMALKK), different from the related mouse and rat sequences by four amino acids.	
concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	34KD	
Dilution Ratios	Western blot(WB): 1:500-2000 Immunohistochemistry(Paraffin-embedded Section): 1:50-400 Immunohistochemistry(Frozen Section): 1:50-400 Immunocytochemistry: 1:50-400 Flow cytometry (FCM): 1-3 $\mu$ g/1x10 <sup>6</sup> cells (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

## Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

## Background Information

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.

## Selected Validation Data

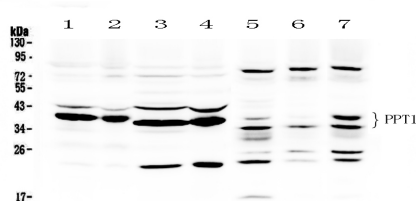


Figure 1. Western blot analysis of PPT1 using anti-PPT1 antibody (PB9781). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: Rat Brain Tissue Lysate, Lane 2: Rat Liver Tissue Lysate, Lane 3: 22RV1 Whole Cell Lysate, Lane 4: HELA Whole Cell Lysate, Lane 5: A431 Whole Cell Lysate, Lane 6: SMMC Whole Cell Lysate. 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 rabbit anti-PPT1 antigen affinity purified polyclonal antibody (Catalog # PB9781) 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-rabbit 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 # EK1002) with Tanon 5200 system. A specific band was detected for PPT1 at approximately 34KD. The expected band size for PPT1 is at 34KD.

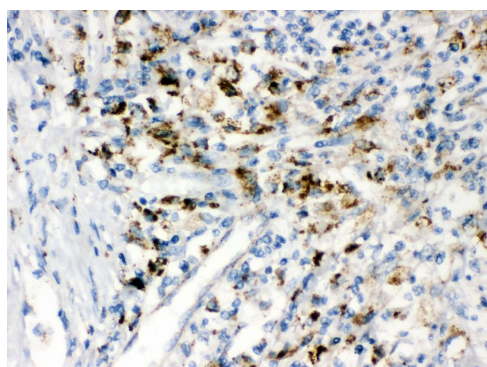


Figure 2. IHC analysis of PPT1 using anti-PPT1 antibody (PB9781). PPT1 was detected in paraffin-embedded section of Human Intestinal Cancer Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-PPT1 Antibody (PB9781) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

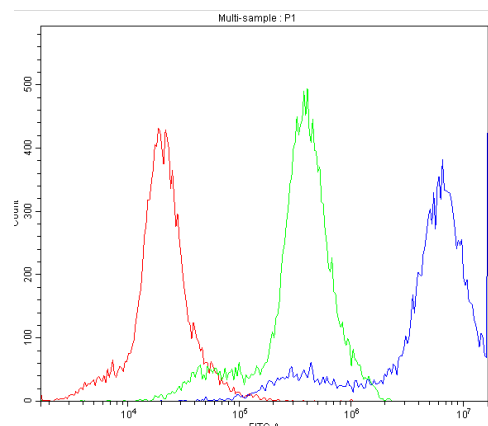


Figure 3. Flow Cytometry analysis of U937 cells using anti-PPT1 antibody (PB9781). Overlay histogram showing U937 cells stained with PB9781 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PPT1 Antibody (PB9781, 1 $\mu$ g/1 $\times 10^6$  cells) for 30 min at 20 $^{\circ}$ C. DyLight $^{\circ}$ 488 conjugated goat anti-rabbit IgG (BA1127, 5-10 $\mu$ g/1 $\times 10^6$  cells) was used as secondary antibody for 30 minutes at 20 $^{\circ}$ C. Isotype control antibody (Green line) was rabbit IgG (1 $\mu$ g/1 $\times 10^6$ ) used under the same conditions. Unlabelled sample (Red line) was also used as a control.