SANTA CRUZ BIOTECHNOLOGY, INC.

PLTP (A-12): sc-271596

BACKGROUND

Phospholipid transfer protein (PLTP) is involved in reverse cholesterol transport, a key means of removal of excess cholesterol from cellular membranes for transport to the liver and subsequent secretion into the bile. PLTP remodels HDL by promoting net transfer and exchange of phospholipids among HDL subclasses and other lipoproteins. PLTP is secreted and distributed widely in various tissues including placenta, kidney, liver and brain. At least two transcript variants encoding different isoforms have been found for this gene. Protein secretion of active PLTP is observable in neurons, microglia and astrocytes in culture. PLTP is present in neurons, astrocytes, microglia and oligodendroglia.

CHROMOSOMAL LOCATION

Genetic locus: PLTP (human) mapping to 20q13.12.

SOURCE

PLTP (A-12) is a mouse monoclonal antibody raised against amino acids 221-493 mapping at the C-terminus of PLTP of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PLTP (A-12) is available conjugated to agarose (sc-271596 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271596 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271596 PE), fluorescein (sc-271596 FITC), Alexa Fluor® 488 (sc-271596 AF488), Alexa Fluor® 546 (sc-271596 AF546), Alexa Fluor® 594 (sc-271596 AF594) or Alexa Fluor® 647 (sc-271596 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271596 AF680) or Alexa Fluor® 790 (sc-271596 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

PLTP (A-12) is recommended for detection of precursor and mature forms of isoforms 1 and 2 of PLTP of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PLTP siRNA (h): sc-106813, PLTP shRNA Plasmid (h): sc-106813-SH and PLTP shRNA (h) Lentiviral Particles: sc-106813-V.

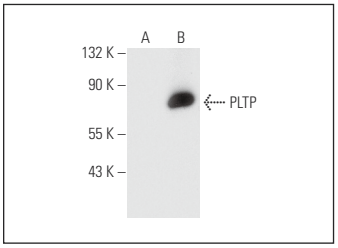
Molecular Weight of PLTP: 80 kDa.

Positive Controls: PLTP (h3): 293T Lysate: sc-170081 or HeLa nuclear extract: sc-2120.

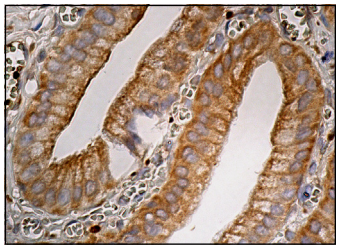
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



PLTP (A-12): sc-271596. Western blot analysis of PLTP expression in non-transfected: sc-117752 (**A**) and human PLTP transfected: sc-170081 (**B**) 293T whole cell lysates.



PLTP (A-12): sc-271596. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Yang, J., et al. 2016. iTRAQ-based proteomics identification of serum biomarkers of two chronic hepatitis B subtypes diagnosed by traditional Chinese medicine. Biomed Res. Int. 2016: 3290260.
2. Zhang, L., et al. 2019. Label-free proteomic analysis reveals the differentiation between unfertilized and fertilized Beijing-You chicken eggs. Int. J. Biol. Macromol. 152: 1020-1026.
3. Gnanapradeepan, K., et al. 2022. PLTP is a p53 target gene with roles in cancer growth suppression and ferroptosis. J. Biol. Chem. 298: 102637.

RESEARCH USE

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

PROTOCOLS

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