

MTP (N-17): sc-33116

BACKGROUND

Microsomal triglyceride transfer protein (MTP) catalyzes the transport of cholesteryl ester, triglyceride and phospholipid between phospholipid surfaces. MTP is a heterodimer consisting of MTP and PDI (protein disulfide isomerase). It is required for the secretion of plasma lipoproteins containing apolipoprotein B. It is negatively regulated by Insulin and positively regulated by cholesterol. MTP, which localizes to the endoplasmic reticulum (ER), is expressed primarily in small intestine, liver, kidney, testis and ovary. It is not expressed in epithelial cells. Defects in the MTP gene can cause abetalipoproteinemia (ABL) which is an autosomal recessive lipoprotein metabolism disorder.

CHROMOSOMAL LOCATION

Genetic locus: MTTP (human) mapping to 4q23; Mtp (mouse) mapping to 3 G3.

SOURCE

MTP (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of MTP of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-33116 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

RESEARCH USE

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

APPLICATIONS

MTP (N-17) is recommended for detection of MTP of mouse, rat 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

MTP (N-17) is also recommended for detection of MTP in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for MTP siRNA (h): sc-45275, MTP siRNA (m): sc-45276, MTP shRNA Plasmid (h): sc-45275-SH, MTP shRNA Plasmid (m): sc-45276-SH, MTP shRNA (h) Lentiviral Particles: sc-45275-V and MTP shRNA (m) Lentiviral Particles: sc-45276-V.

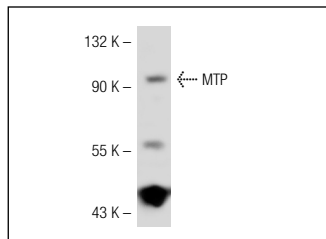
Molecular Weight of MTP: 97 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or mouse liver extract: sc-2256.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



MTP (N-17): sc-33116. Western blot analysis of MTP expression in Hep G2 whole cell lysate.

SELECT PRODUCT CITATIONS

- Shindo, N., et al. 2010. Involvement of microsomal triglyceride transfer protein in nonalcoholic steatohepatitis in novel spontaneous mouse model. *J. Hepatol.* 52: 903-912.
- Mancone, C., et al. 2012. Ferritin heavy chain is the host factor responsible for HCV-induced inhibition of apoB-100 production and is required for efficient viral infection. *J. Proteome Res.* 11: 2786-2797.
- Rojas, J.M., et al. 2012. Central nervous system neuropeptide Y signaling via the Y1 receptor partially dissociates feeding behavior from lipoprotein metabolism in lean rats. *Am. J. Physiol. Endocrinol. Metab.* 303: E1479-E1488.
- Seyer, A., et al. 2013. Lipidomic and spatio-temporal imaging of fat by mass spectrometry in mice duodenum during lipid digestion. *PLoS ONE* 8: e58224.
- Wang, X., et al. 2014. Novel effect of ezetimibe to inhibit the development of non-alcoholic fatty liver disease in Fatty Liver Shionogi mouse. *Hepatol. Res.* 44: 102-113.

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Try **MTP (8): sc-135994**, our highly recommended monoclonal alternative to MTP (N-17).