

# GLTP (N-17): sc-242912



The Power to Question

## BACKGROUND

GLTP (glycolipid transfer protein) is a 209 amino acid protein that belongs to the GLTP family. GLTP accelerates glycolipid intermembrane transfer via a unique lipid transfer/binding fold (GLTP fold) that defines the GLTP superfamily. GLTP catalyzes the transfer of various glycosphingolipids between membranes, but does not catalyze the transfer of phospholipids. GLTP may also be involved in the intracellular translocation of glucosylceramides. Highly conserved among mammals, GLTP is detected in fibroblasts as well as various cancer cell lines. Existing as a monomer, GLTP is localized to the cytoplasm and is encoded by a gene that maps to human chromosome 12q24.11 and mouse chromosome 5 F.

## REFERENCES

1. Mattjus, P., et al. 2000. Charged membrane surfaces impede the protein-mediated transfer of glycosphingolipids between phospholipid bilayers. *Biochemistry* 39: 1067-1075.
2. Li, X.M., et al. 2004. Human glycolipid transfer protein: probing conformation using fluorescence spectroscopy. *Biochemistry* 43: 10285-10294.
3. Rao, C.S., et al. 2004. Glycolipid transfer protein mediated transfer of glycosphingolipids between membranes: a model for action based on kinetic and thermodynamic analyses. *Biochemistry* 43: 13805-13815.
4. Malinina, L., et al. 2004. Structural basis for glycosphingolipid transfer specificity. *Nature* 430: 1048-1053.
5. Malakhova, M.L., et al. 2005. Point mutational analysis of the liganding site in human glycolipid transfer protein. Functionality of the complex. *J. Biol. Chem.* 280: 26312-26320.
6. Airene, T.T., et al. 2006. Structural evidence for adaptive ligand binding of glycolipid transfer protein. *J. Mol. Biol.* 355: 224-236.
7. Tuuf, J., et al. 2007. Human glycolipid transfer protein—intracellular localization and effects on the sphingolipid synthesis. *Biochim. Biophys. Acta* 1771: 1353-1363.

## CHROMOSOMAL LOCATION

Genetic locus: GLTP (human) mapping to 12q24.11; GltP (mouse) mapping to 5 F.

## SOURCE

GLTP (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of GLTP 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-242912 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

GLTP (N-17) is recommended for detection of GLTP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

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

Suitable for use as control antibody for GLTP siRNA (h): sc-95836, GLTP siRNA (m): sc-145440, GLTP shRNA Plasmid (h): sc-95836-SH, GLTP shRNA Plasmid (m): sc-145440-SH, GLTP shRNA (h) Lentiviral Particles: sc-95836-V and GLTP shRNA (m) Lentiviral Particles: sc-145440-V.

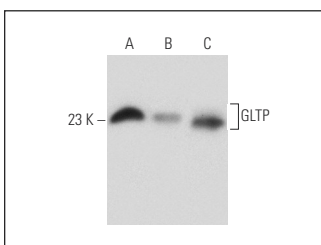
Molecular Weight of GLTP: 24 kDa.

Positive Controls: T-47D cell lysate: sc-2293, MCF7 whole cell lysate: sc-2206 or mouse brain extract: sc-2253.

## 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) 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



GLTP (N-17): sc-242912. Western blot analysis of GLTP expression in T-47D (A) and MCF7 (B) whole cell lysates and mouse brain tissue extract (C).

## STORAGE

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

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Try **GLTP (C-3): sc-514289** or **GLTP (D-9): sc-514388**, our highly recommended monoclonal alternatives to GLTP (N-17).