SANTA CRUZ BIOTECHNOLOGY, INC.

GLTP (D-9): sc-514388

SANTA CRUZ BIOTECHNOLOGY

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. Airenne, T.T., et al. 2006. Structural evidence for adaptive ligand binding of glycolipid transfer protein. J. Mol. Biol. 355: 224-236.
7. Tuuf, J. and Mattjus, P. 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 (D-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 35-57 within an internal region of GLTP of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-514388 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

GLTP (D-9) is recommended for detection of GLTP of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

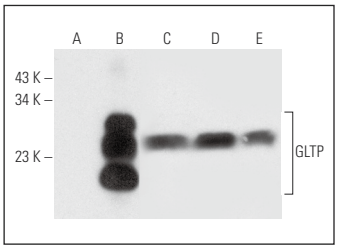
Molecular Weight of GLTP: 24 kDa.

Positive Controls: GLTP (m): 293T Lysate: sc-120509, T-47D cell lysate: sc-2293 or MCF7 whole cell lysate: sc-2206.

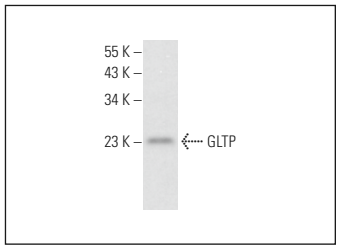
RECOMMENDED SUPPORT REAGENTS

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, 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 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.

DATA



GLTP (D-9): sc-514388. Western blot analysis of GLTP expression in non-transfected 293T: sc-117752 (**A**), mouse GLTP transfected 293T: sc-120509 (**B**), T-47D (**C**), MCF7 (**D**) and CCRF-CEM (**E**) whole cell lysates.



GLTP (D-9): sc-514388. Western blot analysis of GLTP expression in RAW 264.7 whole cell lysate.

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.

PROTOCOLS

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