

GLTP (C-3): sc-514289

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.

CHROMOSOMAL LOCATION

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

SOURCE

GLTP (C-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 36-57 within an internal region of GLTP 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.

GLTP (C-3) is available conjugated to agarose (sc-514289 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514289 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514289 PE), fluorescein (sc-514289 FITC), Alexa Fluor® 488 (sc-514289 AF488), Alexa Fluor® 546 (sc-514289 AF546), Alexa Fluor® 594 (sc-514289 AF594) or Alexa Fluor® 647 (sc-514289 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514289 AF680) or Alexa Fluor® 790 (sc-514289 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514289 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

GLTP (C-3) 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.

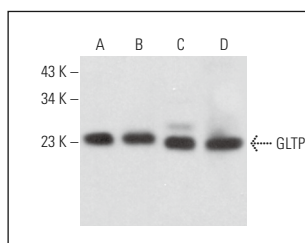
Molecular Weight of GLTP: 24 kDa.

Positive Controls: GLTP (m): 293T Lysate: sc-120509, CCRF-CEM cell lysate: sc-2225 or mouse brain extract: sc-2253.

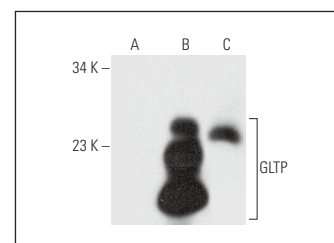
RECOMMENDED SUPPORT REAGENTS

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.

DATA



GLTP (C-3): sc-514289. Western blot analysis of GLTP expression in CCRF-CEM (A), SCC-4 (B) and RAW 264.7 (C) whole cell lysates and rat colon tissue extract (D).



GLTP (C-3): sc-514289. Western blot analysis of GLTP expression in non-transfected 293T: sc-117752 (A) and mouse GLTP transfected 293T: sc-120509 (B) whole cell lysates and mouse brain tissue extract (C).

SELECT PRODUCT CITATIONS

1. Yang, F., et al. 2019. Proteomics of the corpus callosum to identify novel factors involved in hypomyelinated Niemann-Pick Type C disease mice. *Mol. Brain* 12: 17.

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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