

TGN38 (21-G): sc-101273

BACKGROUND

TGN38 (*trans*-Golgi network protein 2) is a type I integral membrane protein that constitutively cycles between the TGN and plasma membrane where it partitions nascent proteins into carrier vesicles for transport to appropriate destinations in the cell. The cytosolic domain of TGN38 interacts with AP2 clathrin adaptor complexes via the tyrosine-containing motif (SDYQRL) to direct internalization from the plasma membrane. N- and O-linked oligosaccharide chains attach to the core TGN38 protein to produce a protein present in brain, lung and kidney.

REFERENCES

- Luzio, J.P., et al. 1990. Identification, sequencing and expression of an integral membrane protein of the *trans*-Golgi network (TGN38). *Biochem. J.* 270: 97-102.
- Ghosh, R.N., et al. 1998. An endocytosed TGN38 chimeric protein is delivered to the TGN after trafficking through the endocytic recycling compartment in CHO cells. *J. Cell Biol.* 142: 923-936.
- Stephens, D.J., et al. 1999. Direct interaction of the *trans*-Golgi network membrane protein, TGN38, with the F-Actin binding protein, neurabin. *J. Biol. Chem.* 274: 30080-30086.
- Online Mendelian Inheritance in Man, OMIM[™]. 1999. Johns Hopkins University, Baltimore, MD. MIM Number: 603062. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Lee, S.S., et al. 2002. Characterisation of the luminal domain of TGN38 and effects of elevated expression of TGN38 on glycoprotein secretion. *Eur. J. Cell Biol.* 81: 609-621.
- Bauer, R.A., et al. 2004. Retention and stimulus-dependent recycling of dense core vesicle content in neuroendocrine cells. *J. Cell Sci.* 117: 2193-2202.
- Saint-Pol, A., et al. 2004. Clathrin adaptor epsinR is required for retrograde sorting on early endosomal membranes. *Dev. Cell* 6: 525-538.
- LocusLink Report (LocusID: 10618). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: TGN38 (human) mapping to 2p11.2.

SOURCE

TGN38 (21-G) is a mouse monoclonal antibody raised against recombinant TGN38 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

TGN38 (21-G) is recommended for detection of TGN38 of 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), 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).

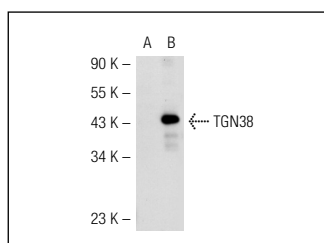
Suitable for use as control antibody for TGN38 siRNA (h): sc-44148; and as shRNA Plasmid control antibody for TGN38 shRNA Plasmid (h): sc-44148-SH.

Molecular Weight of TGN38: 38 kDa.

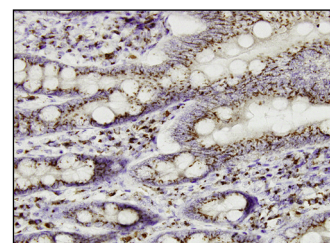
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker[™] compatible goat anti-mouse IgG-HRP: sc-2031 (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 goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz[™]: sc-2050 or ABC: sc-2017 mouse IgG Staining Systems.

DATA



TGN38 (21-G): sc-101273. Western blot analysis of TGN38 expression in non-transfected: sc-117752 (A) and human TGN38 transfected: sc-114787 (B) 293T whole cell lysates.



TGN38 (21-G): sc-101273. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human small intestine tissue showing membrane localization.

SELECT PRODUCT CITATIONS

- Oehlke, O., et al. 2010. Rab11b and its effector Rip11 regulate the acidosis-induced traffic of V-ATPase in salivary ducts. *J Cell Physiol.* E-published.

RESEARCH USE

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

PROTOCOLS

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