SANTA CRUZ BIOTECHNOLOGY, INC.

TGN38 (B-6): sc-166594

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

CHROMOSOMAL LOCATION

Genetic locus: TGOLN2 (human) mapping to 2p11.2; Tgoln1/Tgoln2 (mouse) mapping to 6 C1.

SOURCE

TGN38 (B-6) is a mouse monoclonal antibody raised against amino acids 21-320 mapping within an internal region of TGN38 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.

TGN38 (B-6) is available conjugated to agarose (sc-166594 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166594 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166594 PE), fluorescein (sc-166594 FITC), Alexa Fluor® 488 (sc-166594 AF488), Alexa Fluor® 546 (sc-166594 AF546), Alexa Fluor® 594 (sc-166594 AF594) or Alexa Fluor® 647 (sc-166594 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166594 AF680) or Alexa Fluor® 790 (sc-166594 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

TGN38 (B-6) is recommended for detection of precursor and mature TGN38 and isoforms TGN46, 48 and 51 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), 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).

Molecular Weight of TGN38: 38 kDa.

Positive Controls: SK-N-MC cell lysate: sc-2237, NIH/3T3 whole cell lysate: sc-2210 or c4 whole cell lysate: sc-364186.

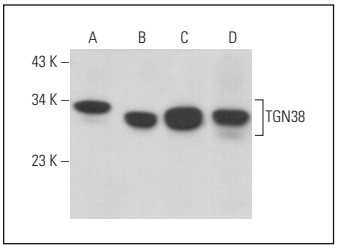
STORAGE

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

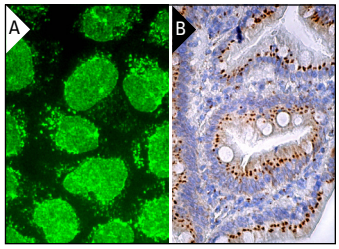
RESEARCH USE

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

DATA



TGN38 (B-6): sc-166594. Western blot analysis of TGN38 expression in SK-N-MC (**A**), NIH/3T3 (**B**) and c4 (**C**) whole cell lysates and mouse brain tissue extract (**D**).



TGN38 (B-6): sc-166594. Immunofluorescence staining of formalin-fixed A-431 cells showing Golgi apparatus and nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmic staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Horikoshi, Y., et al. 2015. Aberrant activation of atypical protein kinase C in carbon tetrachloride-induced oxidative stress provokes a disturbance of cell polarity and sealing of bile canalicular lumen. Am. J. Pathol. 185: 958-968.
2. Vogelgesang, S., et al. 2017. Analysis of the serotonergic system in a mouse model of Rett syndrome reveals unusual upregulation of serotonin receptor 5b. Front. Mol. Neurosci. 10: 61.
3. Samarani, M., et al. 2018. A lysosome-plasma membrane-sphingolipid axis linking lysosomal storage to cell growth arrest. FASEB J. 32: 5685-5702.
4. Pauwels, A.M., et al. 2019. Spatiotemporal changes of the phagosomal proteome in dendritic cells in response to LPS stimulation. Mol. Cell. Proteomics 18: 909-922.
5. Knupp, A., et al. 2020. Depletion of the AD risk gene SORL1 selectively impairs neuronal endosomal traffic independent of amyloidogenic APP processing. Cell Rep. 31: 107719.
6. Muroi, S.I. and Isohama, Y. 2021. C-terminal domain of aquaporin-5 is required to pass its protein quality control and ensure its trafficking to plasma membrane. Int. J. Mol. Sci. 22: 13461.
7. Chae, C.W., et al. 2022. High glucose-mediated VPS26a down-regulation dysregulates neuronal amyloid precursor protein processing and Tau phosphorylation. Br. J. Pharmacol. 179: 3934-3950.
8. Frank, D., et al. 2022. Ubiquitylation of RIPK3 beyond-the-RHIM can limit RIPK3 activity and cell death. iScience 25: 104632.
9. Jäntti, M.H., et al. 2022. Palmitate and thapsigargin have contrasting effects on ER membrane lipid composition and ER proteostasis in neuronal cells. Biochim. Biophys. Acta Mol. Cell Biol. Lipids 1867: 159219.

PROTOCOLS

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