

Datasheet: AHP499

Description:	SHEEP ANTI RAT TGN38
Specificity:	TGN38
Format:	Serum
Product Type:	Polyclonal Antibody
Isotype:	Polyclonal IgG
Quantity:	0.1 ml

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen	▪			1/100 - 1/200
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting	▪			1/1000
Immunofluorescence	▪			
Immuno-electron Microscopy	▪			

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

Target Species

Rat

Species Cross Reactivity

Reacts with: Mouse

N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form

serum diluted - liquid

Antiserum Preparation

Antisera to TGN38 were raised by repeated immunisations of sheep with highly purified antigen.

Buffer Solution	Phosphate buffered saline
Preservative	<0.1% Sodium Azide (NaN ₃)
Stabilisers	25% Glycerol 1% Bovine Serum Albumin
Immunogen	Recombinant fusion protein corresponding to extracellular domain of TGN38.
External Database Links	<p>UniProt: P19814 Related reagents</p> <p>Entrez Gene: 192152 Tgoln1 Related reagents</p>
RRID	AB_2287346
Specificity	<p>Sheep anti Rat TGN38 antibody recognizes rat TGN38, a 357 amino acid single pass trans membrane glycoprotein found primarily in the trans-golgi network, and acts as an excellent marker for this cellular organelle (Humphrey et al. 1993).</p> <p>TGN38 is likely to have a role in intracellular transport (McNamara et al. 2004) and plays a role in morphological maintenance (Girotti and Banting 1996). It is the homologue of human TGN46 and macaque TGN47 (Ponnambalam et al. 1996).</p>
Immunohistology	Fixation with methanol or methanol/acetone recommended.
References	<ol style="list-style-type: none"> 1. Vo, Y.P. <i>et al.</i> (2004) Recycling of the dense-core vesicle membrane protein phogrin in Min6 beta-cells. Biochem Biophys Res Commun. 324: 1004-10. 2. Prabhu, Y. <i>et al.</i> (2014) Defective Transport of the Obesity Mutant PC1/3 N222D Contributes to Loss of Function. Endocrinology. 155: 2391-401. 3. Ni-Komatsu, L. <i>et al.</i> (2008) Identification of quinolines that inhibit melanogenesis by altering tyrosinase family trafficking. Mol Pharmacol. 74:1576-86. 4. Mathews, P.M. <i>et al.</i> (2002) Alzheimer's disease-related overexpression of the cation-dependent mannose 6-phosphate receptor increases Abeta secretion: role for altered lysosomal hydrolase distribution in beta-amyloidogenesis. J Biol Chem. 277: 5299-307. 5. Phillips, S.E. <i>et al.</i> (2006) Specific and nonspecific membrane-binding determinants cooperate in targeting phosphatidylinositol transfer protein beta-isoform to the mammalian trans-Golgi network. Mol Biol Cell. 17: 2498-512. 6. Waugh, M.G. <i>et al.</i> (2011) Detergent-free isolation and characterization of cholesterol-rich membrane domains from trans-Golgi network vesicles. J Lipid Res. 52: 582-9. 7. Farah, C.A. <i>et al.</i> (2006) Tau interacts with Golgi membranes and mediates their association with microtubules. Cell Motil Cytoskeleton. 63: 710-24. 8. Hesse, D. <i>et al.</i> (2010) Altered GLUT4 trafficking in adipocytes in the absence of the GTPase Arfrp1. Biochem Biophys Res Commun. 394: 896-903. 9. Miranda-Saksena, M. <i>et al.</i> (2002) In rat dorsal root ganglion neurons, herpes simplex virus type 1 tegument forms in the cytoplasm of the cell body. J Virol. 76: 9934-51.

10. Procino, G. *et al.* (2006) Adipocytes support cAMP-dependent translocation of aquaporin-2 from intracellular sites distinct from the insulin-responsive GLUT4 storage compartment. [Am J Physiol Renal Physiol. 290: F985-94.](#)
11. Han, L. *et al.* (2008) A large form of secretogranin III functions as a sorting receptor for chromogranin A aggregates in PC12 cells. [Mol Endocrinol. 22: 1935-49.](#)
12. Probst, O.C. *et al.* (2006) The 46-kDa mannose 6-phosphate receptor does not depend on endosomal acidification for delivery of hydrolases to lysosomes. [J Cell Sci. 119 \(Pt 23\): 4935-43.](#)
13. Wasmeier, C. *et al.* (2006) Rab38 and Rab32 control post-Golgi trafficking of melanogenic enzymes. [J Cell Biol. 175: 271-81.](#)
14. Hou, J.C. *et al.* (2006) A specific dileucine motif is required for the GGA-dependent entry of newly synthesized insulin-responsive aminopeptidase into the insulin-responsive compartment. [J Biol Chem. 281: 33457-66.](#)
15. Fortin, M.E. *et al.* (2006) Modulation of GJA1 turnover and intercellular communication by proinflammatory cytokines in the anterior pituitary folliculostellate cell line TtT/GF. [Biol Reprod. 74: 2-12.](#)
16. Vasile, E. *et al.* (2006) IntraGolgi distribution of the Conserved Oligomeric Golgi (COG) complex. [Exp Cell Res. 312: 3132-41.](#)
17. Acquatella-Tran Van Ba, I. *et al.* (2011) Reg-1 α is a new neuronal secreted factor that stimulates neurite outgrowth via the Exostosin tumor-like 3 (EXTL3) receptor. [J Biol Chem. 287: 4726-39.](#)
18. Watanabe, T. *et al.* (2012) A unique ball-shaped Golgi apparatus in the rat pituitary gonadotrope: its functional implications in relation to the arrangement of the microtubule network. [J Histochem Cytochem. 60: 588-602.](#)
19. Yamamoto, H. *et al.* (2016) Posttranslational processing of FGF23 in osteocytes during the osteoblast to osteocyte transition. [Bone. 84: 120-30.](#)
20. Koga, D. *et al.* (2015) Correlative Light and Scanning Electron Microscopy for Observing the Three-Dimensional Ultrastructure of Membranous Cell Organelles in Relation to Their Molecular Components. [J Histochem Cytochem. 63 \(12\): 968-79.](#)
21. Mukai, K. *et al.* (2016) Activation of STING requires palmitoylation at the Golgi. [Nat Commun. 7: 11932.](#)
22. Koga, D. *et al.* (2017) Changes in the three-dimensional ultrastructure of membranous organelles in male rat pituitary gonadotropes after castration. [Biomed Res. 38 \(1\): 1-18.](#)
23. Kusumi, S. *et al.* (2018) Combination of a cryosectioning method and section scanning electron microscopy for immuno-scanning electron microscopy. [Biomed Res. 39 \(1\): 21-25.](#)
24. Mukai, K. *et al.* (2021) Homeostatic regulation of STING by retrograde membrane traffic to the ER. [Nat Commun. 12 \(1\): 61.](#)
25. Caswell, P.T. & Dickens, M. (2018) JIP3 localises to exocytic vesicles and focal adhesions in the growth cones of differentiated PC12 cells. [Mol Cell Biochem. 444 \(1-2\): 1-13.](#)
26. Ogawa, E. *et al.* (2018) The binding of TBK1 to STING requires exocytic membrane traffic from the ER. [Biochem Biophys Res Commun. 503 \(1\): 138-145.](#)
27. Sou, Y.S. *et al.* (2019) Cerebellar Neurodegeneration and Neuronal Circuit Remodeling in Golgi pH Regulator-Deficient Mice. [eNeuro. 6\(3\):ENEURO.0427-18.2019.](#)

Further Reading

1. 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.](#)

Storage This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10048 available at: 10048: <https://www.bio-rad-antibodies.com/uploads/MSDS/10048.pdf>

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

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Donkey Anti Sheep IgG (STAR88...) [DyLight®488](#), [HRP](#)

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