

## Datasheet: AHP500

**BATCH NUMBER 149221**

<b>Description:</b>	SHEEP ANTI HUMAN TGN46
<b>Specificity:</b>	TGN46
<b>Other names:</b>	TGOLN2
<b>Format:</b>	Serum
<b>Product Type:</b>	Polyclonal Antibody
<b>Isotype:</b>	Polyclonal IgG
<b>Quantity:</b>	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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry			▪	
Immunohistology - Frozen	▪			1/50 - 1/100
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting	▪			1/500 - 1/000
Immunofluorescence	▪			

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.

<b>Target Species</b>	Human
<b>Species Cross Reactivity</b>	<p>Reacts with: Primate</p> <p><b>N.B.</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.</p>
<b>Product Form</b>	Serum, diluted - liquid

**Antiserum Preparation** Antisera to human TGN46 were raised by repeated immunisation of sheep with highly

purified antigen.

---

**Buffer Solution** Phosphate buffered saline

---

**Preservative** 0.02% Sodium Azide (NaN<sub>3</sub>)  
**Stabilisers** 1% Bovine Serum Albumin  
50% Glycerol

---

**Immunogen** Recombinant human TGN46.

---

**External Database Links**

**UniProt:**

[O43493](#)

[Related reagents](#)

**Entrez Gene:**

[10618](#)

TGOLN2

[Related reagents](#)

---

**Synonyms** TGN46, TGN51

---

**RRID** AB\_324049

---

**Specificity** **Sheep anti Human TGN46 antibody** recognizes Trans-Golgi network integral membrane protein 2 (TGOLN2), also known as TGN38 homolog, TGN46, TGN48 or Trans-Golgi network protein TGN51. TGN46 is a 437 amino acid glycoprotein localized to the Trans-Golgi network. TGN46 has been reported as being the best available marker for human trans-Golgi network.

TGN46 is a heavily glycosylated protein of around 110-120 kDa. Multiple isoforms of TGN46 are generated by alternative splicing differing in sequence at the C-terminal portion. Sheep anti Human TGN46 antibody is expected to recognize all identified isoforms.

---

**Immunohistology** Fixation with 3% paraformaldehyde or methanol/acetone is recommended.

---

**References**

1. Prescott AR *et al.* (1997) Distinct compartmentalization of TGN46 and beta 1,4-galactosyltransferase in HeLa cells. [Eur J Cell Biol. 72 \(3\): 238-46.](#)
2. Vuillier, F. *et al.* (2005) Lower levels of surface B-cell-receptor expression in chronic lymphocytic leukemia are associated with glycosylation and folding defects of the mu and CD79a chains. [Blood. 105 \(7\): 2933-40.](#)
3. Edwards, T.L. *et al.* (2009) Endogenous spartin (SPG20) is recruited to endosomes and lipid droplets and interacts with the ubiquitin E3 ligases AIP4 and AIP5. [Biochem J. 423 \(1\): 31-9.](#)
4. Roberts, R.C. *et al.* (2010) Mistargeting of SH3TC2 away from the recycling endosome causes Charcot-Marie-Tooth disease type 4C. [Hum Mol Genet. 19: 1009-18.](#)
5. Hauser, H. *et al.* (2010) HIV-1 Vpu and HIV-2 Env counteract BST-2/tetherin by sequestration in a perinuclear compartment. [Retrovirology. 7: 51.](#)
6. Oliver, S.L. *et al.* (2011) Mutagenesis of varicella-zoster virus glycoprotein I (gI) identifies a cysteine residue critical for gE/gI heterodimer formation, gI structure, and

- virulence in skin cells. [J Virol. 85 \(9\): 4095-110.](#)
7. Berarducci, B. *et al.* (2006) Essential functions of the unique N-terminal region of the varicella-zoster virus glycoprotein E ectodomain in viral replication and in the pathogenesis of skin infection. [J Virol. 80: 9481-96.](#)
8. Sadaoka, T. *et al.* (2010) Characterization of the varicella-zoster virus ORF50 gene, which encodes glycoprotein M. [J Virol. 84: 3488-502.](#)
9. Vleck, S.E. *et al.* (2010) Anti-glycoprotein H antibody impairs the pathogenicity of varicella-zoster virus in skin xenografts in the SCID mouse model. [J Virol. 84: 141-52.](#)
10. Esk, C. *et al.* (2010) The clathrin heavy chain isoform CHC22 functions in a novel endosomal sorting step. [J Cell Biol. 188: 131-44.](#)
11. Cheng, S.B. *et al.* (2011) Down-modulation of the G-protein-coupled Estrogen Receptor, GPER, from the Cell Surface Occurs via a trans-Golgi-Proteasome Pathway. [J Biol Chem. 286: 22441-55.](#)
12. Fairn, G.D. *et al.* (2011) High-resolution mapping reveals topologically distinct cellular pools of phosphatidylserine. [J Cell Biol. 194 \(2\): 257-75.](#)
13. Kawabata, A. *et al.* (2011) Analysis of a Neutralizing Antibody for Human Herpesvirus 6B Reveals a Role for Glycoprotein Q1 in Viral Entry. [J Virol. 85: 12962-71.](#)
14. Cornfine, S. *et al.* (2011) The kinesin KIF9 and reggie/flotillin proteins regulate matrix degradation by macrophage podosomes. [Mol Biol Cell. 22: 202-15.](#)
15. Luo, S. *et al.* (2015) Contribution of N-linked glycans on HSV-2 gB to cell-cell fusion and viral entry. [Virology. 483: 72-82.](#)
16. El Kasmi, I. & Lippé, R. (2015) Herpes simplex virus 1 gN partners with gM to modulate the viral fusion machinery. [J Virol. 89 \(4\): 2313-23.](#)
17. Chia, R. *et al.* (2014) Phosphorylation of LRRK2 by casein kinase 1 $\alpha$  regulates trans-Golgi clustering via differential interaction with ARHGEF7. [Nat Commun. 5: 5827.](#)
18. Vorobyeva, A.G. *et al.* (2014) Cyclopamine modulates  $\gamma$ -secretase-mediated cleavage of amyloid precursor protein by altering its subcellular trafficking and lysosomal degradation. [J Biol Chem. 289 \(48\): 33258-74.](#)
19. Wang Z *et al.* (2014) A newly identified myomegalin isoform functions in Golgi microtubule organization and ER-Golgi transport. [J Cell Sci. 127 \(22\): 4904-17.](#)
20. Ikawa Y *et al.* (2015) *In vitro* functional correction of Hermansky-Pudlak Syndrome type-1 by lentiviral-mediated gene transfer. [Mol Genet Metab. 114 \(1\): 62-5.](#)
21. Ioannou, M.S. *et al.* (2015) DENND2B activates Rab13 at the leading edge of migrating cells and promotes metastatic behavior. [J Cell Biol. 208 \(5\): 629-48.](#)
22. Gottschalk, E.Y. & Meneses, P.I. (2015) A Dual Role for the Nonreceptor Tyrosine Kinase Pyk2 during the Intracellular Trafficking of Human Papillomavirus 16. [J Virol. 89 \(17\): 9103-14.](#)
23. Crevenna, A.H. *et al.* (2016) Secretory cargo sorting by Ca<sup>2+</sup>-dependent Cab45 oligomerization at the trans-Golgi network. [J Cell Biol. 213 \(3\): 305-14.](#)
24. Matrone, C. *et al.* (2016) Mannose 6-Phosphate Receptor Is Reduced in  $\alpha$ -Synuclein Overexpressing Models of Parkinsons Disease. [PLoS One. 11 \(8\): e0160501.](#)
25. Ketteler, R. *et al.* (2017) Image-based siRNA screen to identify kinases regulating Weibel-Palade body size control using electroporation. [Sci Data. 4: 170022.](#)
26. Lukhele, S. & Cohen É.A. (2017) Conserved residues within the HIV-1 Vpu transmembrane-proximal hinge region modulate BST2 binding and antagonism. [Retrovirology. 14 \(1\): 18.](#)
27. Haugsten, E.M. *et al.* (2016) Proximity Labeling Reveals Molecular Determinants of

- FGFR4 Endosomal Transport. [J Proteome Res. 15 \(10\): 3841-55.](#)
28. Paquin, N. *et al.* (2016) The Conserved VPS-50 Protein Functions in Dense-Core Vesicle Maturation and Acidification and Controls Animal Behavior. [Curr Biol. 26 \(7\): 862-71.](#)
29. Sugden, S.M. *et al.* (2017) HIV-1 Vpu Downmodulates ICAM-1 Expression, Resulting in Decreased Killing of Infected CD4<sup>+</sup> T Cells by NK Cells. [J Virol. 91 \(8\): pii: e02442-16.](#)
30. DiGiuseppe, S. *et al.* (2015) Topography of the Human Papillomavirus Minor Capsid Protein L2 during Vesicular Trafficking of Infectious Entry. [J Virol. 89 \(20\): 10442-52.](#)
31. Cabukusta, B. *et al.* (2017) Ceramide phosphoethanolamine synthase SMSr is a target of Caspase-6 during apoptotic cell death. [Biosci Rep. Jun 28. pii: BSR20170867 \[Epub ahead of print\]](#)
32. Luchsinger, C. *et al.* (2018) Functional disruption of the Golgi apparatus protein ARF1 sensitizes MDA-MB-231 breast cancer cells to the antitumor drugs Actinomycin D and Vinblastine through ERK and AKT signaling. [PLoS One. 13 \(4\): e0195401.](#)
33. Piccolo, P. *et al.* (2019) Geleophysic dysplasia: novel missense variants and insights into ADAMTSL2 intracellular trafficking. [Mol Genet Metab Rep. 21: 100504.](#)
34. Ayala, I. *et al.* (2019) GRASP65 controls Golgi position and structure during G2/M transition by regulating the stability of microtubules. [Traffic. 20 \(10\): 785-802.](#)
35. Cavieres, V.A. *et al.* (2020) Human Golgi phosphoprotein 3 is an effector of RAB1A and RAB1B. [PLoS One. 15 \(8\): e0237514.](#)

---

**Further Reading** 1. Ponnambalam, S. *et al.* (1996) Primate homologues of rat TGN38: primary structure, expression and functional implications. [J Cell Sci. 109 \( Pt 3\): 675-85.](#)

---

**Storage** Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

---

**Guarantee** 12 months from date of despatch

---

**Health And Safety Information** Material Safety Datasheet documentation #10048 available at: <https://www.bio-rad-antibodies.com/SDS/AHP500>  
10048

---

**Regulatory** For research purposes only

## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Sheep IgG (H/L) (5184-2304...) [Biotin](#)

**North & South America** Tel: +1 800 265 7376  
Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

**Worldwide** Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: [antibody\\_sales\\_uk@bio-rad.com](mailto:antibody_sales_uk@bio-rad.com)

**Europe**

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: [antibody\\_sales\\_de@bio-rad.com](mailto:antibody_sales_de@bio-rad.com)

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)

'M364244:200529'

**Printed on 02 Apr 2024**

---

© 2024 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)