Technical Data Sheet

Purified Mouse Anti-Rat TGN38

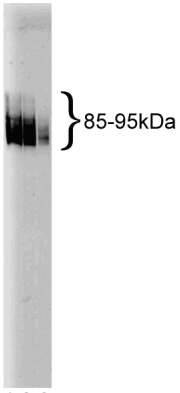
Product Information

Material Number:	**610899**
Alternate Name:	Trans Golgi Network-38
Size:	150 µg
Concentration:	250 µg/ml
Clone:	2/TGN38
Immunogen:	Rat TGN38 aa. 31-244
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Rat
Target MW:	85-95 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

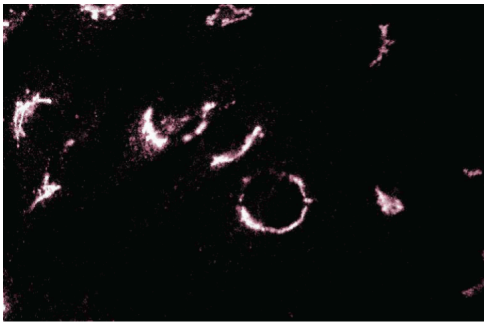
Description

Newly synthesized proteins exit the ER and move to the cis-Golgi network (CGN) where they traverse the cis-medial and trans-cisternae before reaching the trans-Golgi network (TGN). N-linked oligosaccharide processing occurs in the TGN, and proteins are sorted to the plasma membrane, lysosomes, endosomes, and secretory granules. TGN38 is a type I integral membrane protein primarily localized to the TGN. It is involved in the sorting of nascent proteins into individual carrier vesicles for transport to appropriate destinations. It is thought to heterodimerize with TGN41 and participate in exocytic budding from the TGN. TGN38 has a molecular weight of 85 to 95 kDa. The core polypeptide represents approximately 38 kDa, while the remainder is accounted for by N- and O-linked oligosaccharide chains. A 286 aa N-terminal lumenal domain, a 21 aa membrane spanning domain, and a 33 aa C-terminal cytoplasmic tail comprise the structure of TGN38. The cytoplasmic tail contains a tyrosine-based motif, YQRL, that is thought to be involved in TGN localization. Therefore, TGN38 mediates the localization of various proteins to the TGN and serves as a TGN retrieval signal.

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Western blot analysis of TGN38 on a rat cerebum lysate. *Lane 1: 1:250, lane 2: 1: 500, lane 3: 1: 1000 dilution of the mouse anti- rat TGN38 antibody.*



Immunofluorescence staining of L6 *cells (Rat skeletal muscle myoblasts; ATCC CRL-1458).*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20° C.

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Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

Suggested Companion Products

Catalog Number	Name	Size	Clone
611463	Rat Cerebrum Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Igs	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Igs	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

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Mary S, Charrasse S, Meriane M. Biogenesis of N-cadherin-dependent cell-cell contacts in living fibroblasts is a microtubule-dependent kinesin-driven mechanism. *Mol Biol Cell.* 2002; 13(1):285-301.(Biology: Immunofluorescence)

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Xu L, Shen Y, Joseph T, Bryant A. Mitogenic phospholipase D activity is restricted to caveolin-enriched membrane microdomains. *Biochem Biophys Res Commun.* 2000; 273(1):77-83.(Biology: Western blot)