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Product Information

Anti-TGN38

produced in rabbit, affinity isolated antibody

Catalog Number **T9826**

Product Description

Anti-TGN38 is developed in rabbit using as immunogen a synthetic peptide corresponding to amino acid residues 18-33 of rat TGN38 (GenelD: 192152) with C-terminal added cysteine, conjugated to KLH. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-TGN38 recognizes rat TGN38 by immunofluorescence. Detection of TGN38 by immunofluorescence is specifically inhibited with the immunizing peptide.

TGN38 (Trans-Golgi network protein, 38-kDa) is a resident integral membrane protein of the trans-Golgi network (TGN), which cycles constitutively between the TGN and the plasma membrane, returning via endosomes.^{1,2} The trans-Golgi network is a dynamic tubulo-vesicular structure adjacent to the distal face of the Golgi apparatus. The TGN is the major sorting compartment of the secretory pathway for proteins, lipids, and membrane traffic. It was suggested that the TGN may be organized into distinct sub-domains formed by the recruitment and assembly of different arrays of protein complexes. These specialized sorting domains may give rise to distinct populations of vesicle carriers that mediate delivery of secretory and membrane proteins to the plasma membrane, lysosomes, endosomes and secretory granules.³⁻⁵

TGN38 is a heavily glycosylated protein probably involved in regulating membrane traffic to and from the TGN. TGN38 contains a signal peptide, luminal domain, membrane-spanning domain, and cytoplasmic domain. The membrane spanning region and cytoplasmic tail contains the retention and retrieval signals, respectively, for localization in the TGN.^{1,2} Two isoforms exist in rat: TGN38 and TGN41. Both isoforms are localized mostly to the TGN.⁶ Anti-TGN38 may be used as a TGN marker.

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: ~1 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

Indirect immunofluorescence: a working concentration of 5-10 µg/mL is recommended by staining of rat NRK cells.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

References

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6. Reaves, B., et al., *Biochem. J.*, **283**, 313-316 (1992).

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