

# TMED3 (Y-13): sc-132119

## BACKGROUND

Transmembrane emp24 domain-containing protein 3 (TMED3), also known as membrane protein p24B, P24B or C15orf22, is a 217 amino acid member of the EMP24/GP25L family. Localized to the Golgi apparatus, TMED3 is a single-pass type I membrane protein containing one GOLD domain. The GOLD (Golgi dynamics) domain is a region of about 90 to 150 amino acids that mediates protein-protein interactions. Interacting with lipid, sterol or fatty acid-binding domains, suggesting an association with membrane proteins, the GOLD domain has also been found to interact with the RUN domain, which interacts with cytoskeletal filaments. Two isoforms of TMED3 exist as a result of alternate splicing events.

## REFERENCES

1. Pudney, J. and Anderson, D. 1995. Effects of fixation and paraffin embedding on the immunohistological detection of cell-associated HIV-1 by different monoclonal antibodies. *J. Histochem. Cytochem.* 43: 857-862.
2. Dominguez, M., Dejgaard, K., Füllekrug, J., Dahan, S., Fazel, A., Paccaud, J.P., Thomas, D.Y., Bergeron, J.J. and Nilsson, T. 1998. gp25L/emp24/p24 protein family members of the *cis*-Golgi network bind both COP I and II coatomer. *J. Cell Biol.* 140: 751-765.
3. Nakamura, N., Yamazaki, S., Sato, K., Nakano, A., Sakaguchi, M. and Mihara, K. 1998. Identification of potential regulatory elements for the transport of EMP24p. *Mol. Biol. Cell* 9: 3493-3503.
4. Callebaut, I., de Gunzburg, J., Goud, B. and Moron, J.P. 2001. RUN domains: a new family of domains involved in Ras-like GTPase signaling. *Trends Biochem. Sci.* 26: 79-83.
5. Anantharaman, V. and Aravind, L. 2002. The GOLD domain, a novel protein module involved in Golgi function and secretion. *Genome Biol.* 3: 23.
6. Dash, D.P., Silvestri, G. and Hughes, A.E. 2006. Fine mapping of the keratoconus with cataract locus on chromosome 15q and candidate gene analysis. *Mol. Vis.* 12: 499-505.

## CHROMOSOMAL LOCATION

Genetic locus: TMED3 (human) mapping to 15q25.1; Tmed3 (mouse) mapping to 9 E3.1.

## SOURCE

TMED3 (Y-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TMED3 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-132119 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

TMED3 (Y-13) is recommended for detection of TMED3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other TMED family members.

TMED3 (Y-13) is also recommended for detection of TMED3 in additional species, including equine and porcine.

Suitable for use as control antibody for TMED3 siRNA (h): sc-90253, TMED3 siRNA (m): sc-154333, TMED3 shRNA Plasmid (h): sc-90253-SH, TMED3 shRNA Plasmid (m): sc-154333-SH, TMED3 shRNA (h) Lentiviral Particles: sc-90253-V and TMED3 shRNA (m) Lentiviral Particles: sc-154333-V.

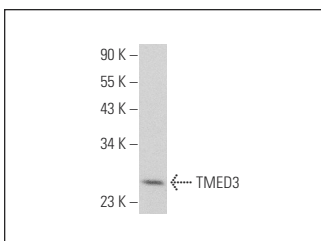
Molecular Weight of TMED3: 25 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or ZR-75-1 cell lysate: sc-2241.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



TMED3 (Y-13): sc-132119. Western blot analysis of TMED3 expression in ZR-75-1 whole cell lysate.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.