SANTA CRUZ BIOTECHNOLOGY, INC.

TMED1 (H-53): sc-292001

BACKGROUND

TMED1 (transmembrane emp24 protein transport domain containing 1), also known as ST2L, Il1rl1l or IL1RL1LG, is a 227 amino acid member of the EMP24/GP25L family. Widely expressed, TMED1 is a single-pass type I membrane protein containing one GOLD domain. Associated with membrane proteins, the GOLD (Golgi dynamics) domain is a region of about 90 to 150 amino acids that mediates protein-protein interactions. The GOLD domain interacts with lipid, sterol or fatty acid-domains as well as with the RUN domain, which interacts with cytoskeletal filaments, of membrane proteins. Suggested to play a role in protein trafficking, TMED1 is encoded by a gene located on human chromosome 19, which consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes.

REFERENCES

1. Schimmöller, F., et al. 1995. The absence of Emp24p, a component of ER-derived COPII-coated vesicles, causes a defect in transport of selected proteins to the Golgi. EMBO J. 14: 1329-1339.
2. Dominguez, M., et al. 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., et al. 1998. Identification of potential regulatory elements for the transport of Emp24p. Mol. Biol. Cell. 9: 3493-3503.
4. Ciufo, L.F., et al. 2000. Identification of a lumenal sequence specifying the assembly of Emp24p into p24 complexes in the yeast secretory pathway. J. Biol. Chem. 275: 8382-8388.
5. Callebaut, I., et al. 2001. RUN domains: a new family of domains involved in Ras-like GTPase signaling. Trends Biochem. Sci. 26: 79-83.
6. Anantharaman, V., et al. 2002. The GOLD domain, a novel protein module involved in Golgi function and secretion. Genome Biol. 3: research0023.
7. Moodie, S.J., et al. 2002. Analysis of candidate genes on chromosome 19 in coeliac disease: an association study of the KIR and LILR gene clusters. Eur. J. Immunogenet. 29: 287-291.

CHROMOSOMAL LOCATION

Genetic locus: TMED1 (human) mapping to 19p13.2; Tmed1 (mouse) mapping to 9 A3.

SOURCE

TMED1 (H-53) is a rabbit polyclonal antibody raised against amino acids 123-175 mapping within an internal region of TMED1 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.

STORAGE

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

APPLICATIONS

TMED1 (H-53) is recommended for detection of TMED1 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).

TMED1 (H-53) is also recommended for detection of TMED1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TMED1 siRNA (h): sc-97103, TMED1 siRNA (m): sc-154331, TMED1 shRNA Plasmid (h): sc-97103-SH, TMED1 shRNA Plasmid (m): sc-154331-SH, TMED1 shRNA (h) Lentiviral Particles: sc-97103-V and TMED1 shRNA (m) Lentiviral Particles: sc-154331-V.

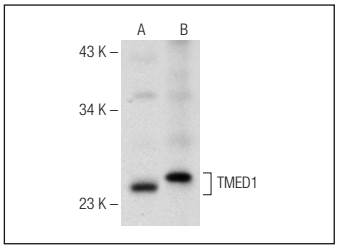
Molecular Weight of TMED1: 25 kDa.

Positive Controls: mouse liver tissue extracts: sc-2256.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



TMED1 (H-53): sc-292001. Western blot analysis of TMED1 expression in human stomach (**A**) and mouse liver (**B**) tissue extracts.

RESEARCH USE

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