

TMED1 (F-9): sc-377321

BACKGROUND

TMED1 (transmembrane emp24 protein transport domain containing 1), also known as ST2L, IL1r11 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

- 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.
- 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.
- Nakamura, N., et al. 1998. Identification of potential regulatory elements for the transport of Emp24p. *Mol. Biol. Cell* 9: 3493-3503.
- Ciufo, L.F., et al. 2000. Identification of a luminal sequence specifying the assembly of Emp24p into p24 complexes in the yeast secretory pathway. *J. Biol. Chem.* 275: 8382-8388.

CHROMOSOMAL LOCATION

Genetic locus: TMED1 (human) mapping to 19p13.2.

SOURCE

TMED1 (F-9) is a mouse monoclonal antibody raised against amino acids 123-175 mapping within an internal region of TMED1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TMED1 (F-9) is available conjugated to agarose (sc-377321 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377321 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377321 PE), fluorescein (sc-377321 FITC), Alexa Fluor® 488 (sc-377321 AF488), Alexa Fluor® 546 (sc-377321 AF546), Alexa Fluor® 594 (sc-377321 AF594) or Alexa Fluor® 647 (sc-377321 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377321 AF680) or Alexa Fluor® 790 (sc-377321 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

RESEARCH USE

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

APPLICATIONS

TMED1 (F-9) is recommended for detection of TMED1 of human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (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 (F-9) is also recommended for detection of TMED1 in additional species, including equine and porcine.

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

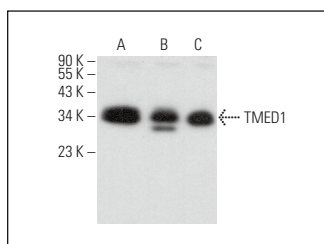
Molecular Weight of TMED1: 25 kDa.

Positive Controls: MDA-MB-231 cell lysate: sc-2232, MCF7 whole cell lysate: sc-2206 or SK-BR-3 cell lysate: sc-2218.

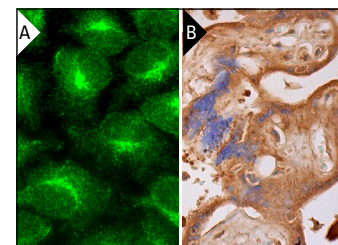
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



TMED1 (F-9): sc-377321. Western blot analysis of TMED1 expression in MDA-MB-231 (A), MCF7 (B) and SK-BR-3 (C) whole cell lysates.



TMED1 (F-9): sc-377321. Immunofluorescence staining of methanol-fixed HeLa cells showing Golgi apparatus and membrane localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic staining of trophoblastic cells (B).

STORAGE

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