

# TMP21 (H-65): sc-68398

## BACKGROUND

TMP21 (21 kDa transmembrane-trafficking protein), also known as TMED10 (transmembrane emp24 domain-containing protein 10), Tmp-21, S311125, S3111125, p23 or p24 $\delta$ , is a member of the EMP24/GP25L/p24 cargo family of proteins that regulates vesicular trafficking in the early secretory pathway. TMP21 is a ubiquitously expressed single-pass type I membrane protein localizing to the Golgi cisternae and the plasma membrane. It contains one GOLD (Golgi dynamics) domain and participates in protein transport and quality control between the endoplasmic reticulum (ER) and the Golgi complex. In addition, TMP21 is a component of the heteromeric secretase complex (or presenilin complex) and functions to regulate the  $\gamma$ -secretase activity. Two isoforms, namely TMP21-I and TMP21-II, exist for this protein.

## REFERENCES

- Sherrington, R., et al. 1995. Cloning of a gene bearing missense mutations in early-onset familial Alzheimer's disease. *Nature* 375: 754-760.
- Blum, R., et al. 1996. TMP21 and p24A, two type I proteins enriched in pancreatic microsomal membranes, are members of a protein family involved in vesicular trafficking. *J. Biol. Chem.* 271: 17183-17189.
- Blum, R., et al. 1999. Intracellular localization and *in vivo* trafficking of p24A and P23. *J. Cell Sci.* 112: 537-548.
- Hörner, J., et al. 1999. A comparative study of rat and human TMP21 (P23) reveals the pseudogene-like features of human TMP21-II. *DNA Seq.* 10: 121-126.
- Baker, L.A. and Gomez, R.A. 2000. TMP21-I, a vesicular trafficking protein, is differentially expressed during induction of the ureter and metanephros. *J. Urol.* 164: 562-566.
- Barr, F.A., et al. 2001. Golgi matrix proteins interact with p24 cargo receptors and aid their efficient retention in the Golgi apparatus. *J. Cell Biol.* 155: 885-891.
- Wang, H. and Kazanietz, M.G. 2002. Chimaerins, novel non-protein kinase C phorbol ester receptors, associate with TMP21-I (P23): evidence for a novel anchoring mechanism involving the chimaerin C1 domain. *J. Biol. Chem.* 277: 4541-4550.

## CHROMOSOMAL LOCATION

Genetic locus: TMED10 (human) mapping to 14q24.3; Tmed10 (mouse) mapping to 12 D2.

## SOURCE

TMP21 (H-65) is a rabbit polyclonal antibody raised against amino acids 41-105 mapping near the N-terminus of TMP21 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## RESEARCH USE

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

## APPLICATIONS

TMP21 (H-65) is recommended for detection of TMP21 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1–2  $\mu$ g per 100–500  $\mu$ g 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).

TMP21 (H-65) is also recommended for detection of TMP21 in additional species, including equine, canine, bovine and porcine.

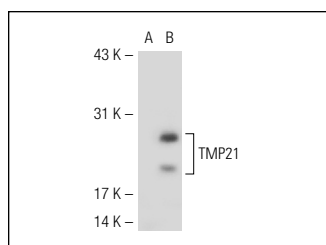
Suitable for use as control antibody for TMP21 siRNA (h): sc-63135 and TMP21 siRNA (m): sc-63136.

Molecular Weight of TMP21: 26 kDa.

## 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



TMP21 (H-65): sc-68398. Western blot analysis of TMP21 expression in non-transfected: sc-117752 (A) and mouse TMP21 transfected: sc-124193 (B) 293T whole cell lysates.

## STORAGE

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


 MONOS  
Satisfaction  
Guaranteed

Try **TMP21 (A-7): sc-137003** or **TMP21 (F-9): sc-137002**, our highly recommended monoclonal alternatives to TMP21 (H-65).