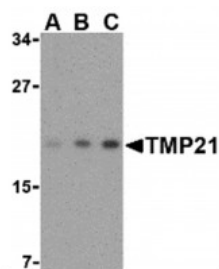


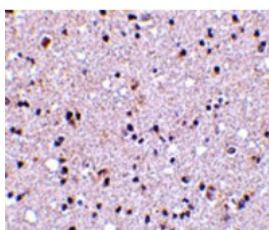


TMP21 Antibody

CATALOG NUMBER: 3999



Western blot analysis of TMP21 in mouse brain tissue lysate with TMP21 antibody at (A) 0.5, (B) 1 and (C) 2 ug/mL.



Immunohistochemistry of TMP21 in human brain tissue with TMP21 antibody at 5 ug/mL.

Specifications

SPECIES REACTIVITY:	Human, Mouse, Rat
HOMOLOGY:	Predicted species reactivity based on immunogen sequence: Bovine: (100%)
TESTED APPLICATIONS:	ELISA, IHC-P, WB
APPLICATIONS:	TMP21 antibody can be used for detection of TMP21 by Western blot at 0.5 - 2 ug/mL. Antibody can also be used for immunohistochemistry starting at 5 ug/mL.
USER NOTE:	Optimal dilutions for each application to be determined by the researcher.
POSITIVE CONTROL:	1) Cat. No. 1403 - Mouse Brain Tissue Lysate 2) Cat. No. 1303 - Human Brain Tissue Lysate
IMMUNOGEN:	TMP21 antibody was raised against a 18 amino acid synthetic peptide from near the center of human TMP21. The immunogen is located within amino acids 70 - 120 of TMP21.
HOST SPECIES:	Rabbit

Properties

PURIFICATION:	TMP21 Antibody is affinity chromatography purified via peptide column.
PHYSICAL STATE:	Liquid
BUFFER:	TMP21 Antibody is supplied in PBS containing 0.02% sodium azide.
CONCENTRATION:	1 mg/mL
STORAGE CONDITIONS:	TMP21 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
CLONALITY:	Polyclonal
ISOTYPE:	IgG
CONJUGATE:	Unconjugated

Additional Info

ALTERNATE NAMES:	TMP21 Antibody: p23, TMP21, S31I125, Tmp-21-I, S31III125, P24(DELTA), Transmembrane emp24 domain-containing protein 10, 21 kDa transmembrane-trafficking protein
ACCESSION NO.:	AAD31941
PROTEIN GI NO.:	4885697
OFFICIAL SYMBOL:	TMED10
GENE ID:	10972

Background

BACKGROUND: TMP21 Antibody: TMP21 is a ubiquitously expressed protein that is involved in vesicular targeting and protein transport. More recent experiments have shown that it is also a component in the presenilin complex and modulates the gamma-secretase but not the epsilon-secretase cleavage activity of the amyloid precursor protein. The presenilin complex is composed of the proteins APH1, nicastrin, and PEN2 in addition to presenilin-1. Together, these proteins cleave the amyloid precursor protein at what is known as the gamma- and epsilon-sites and can lead to the accumulation of the Abeta cleavage product that is associated with Alzheimer's disease. Co-immunoprecipitation experiments using antibodies against these proteins also yielded TMP21 indicating that TMP21 may play a role in the regulation of this complex. Suppression of TMP21 expression by siRNA in transfected cells caused increased gamma-secretase activity but not epsilon-secretase activity, and increased Abeta₄₂ production, demonstrating that TMP21 can modulate gamma-secretase activity.

- REFERENCES:**
- 1) Blunt R, Feick P, Puype M, et al. 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. 1996; 271:17183-9.
 - 2) Chen F, Hasegawa H, Schmitt-Ulms G, et al. TMP21 is a presenilin complex component that modulates γ -secretase but not ϵ -secretase activity. Nature 2006; 440:1208-12.
 - 3) Periz G and Fortini ME. Functional reconstitution of γ -secretase through coordinated expression of presenilin, nicastrin, aph-1, and pen-2. J. Neurosci. Res. 2004; 77:309-22.
 - 4) Selkoe DJ. The cell biology of β -amyloid precursor protein and presenilin in Alzheimer's disease. Trends Cell Biol. 1998; 8:447-53.

FOR RESEARCH USE ONLY

December 13, 2016