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FRMPD4 Antibody
Catalog # ASC11005

Specification

FRMPD4 Antibody - Product Information

Application	**WB, IHC, IF**
Primary Accession	Q12767
Other Accession	AAI43747, 9772
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**FRMPD4 antibody can be used for detection of FRMPD4 by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.**

FRMPD4 Antibody - Additional Information

Gene ID **9772**

Target/Specificity
FRMPD4 antibody was raised against an 18 amino acid synthetic peptide from near the center of human FRMPD4.

The immunogen is located within amino acids 620 - 670 of FRMPD4.

Reconstitution & Storage
FRMPD4 antibody can be stored at 4℃ for three months and -20℃, 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.

Precautions
FRMPD4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

FRMPD4 Antibody - Protein Information

Name TMEM94 (HGNC:28983)

Synonyms KIAA0195

Cellular Location
Membrane; Multi-pass membrane protein

Tissue Location
Expressed ubiquitously.

FRMPD4 Antibody - Protocols

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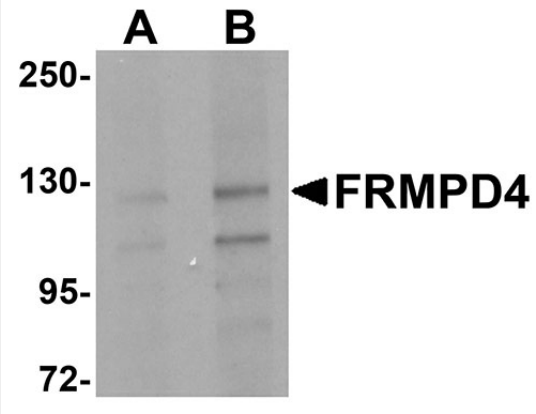
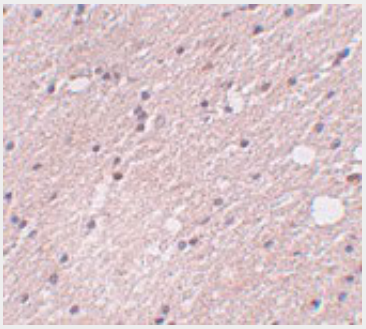
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

FRMPD4 Antibody - Images



Western blot analysis of FRMPD4 in SK-N-SH cell lysate with FRMPD4 antibody at (A) 1 and (B) 2 µg/mL.



Immunohistochemistry of FRMPD4 in human brain tissue with FRMPD4 antibody at 5 µg/mL.

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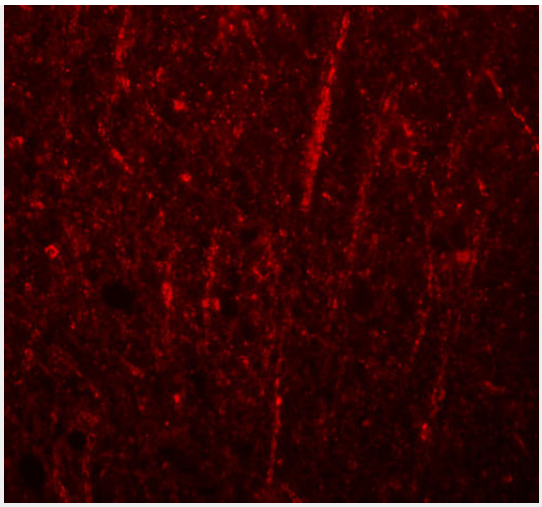

Immunofluorescence of FRMPD4 in human brain tissue with FRMPD4 antibody at 20 µg/mL.

FRMPD4 Antibody - Background

FRMPD4 Antibody: The FERM and PDZ domain containing (FRMPD) protein family consists of four proteins that contain a FERM (Four-point-one, erzin, radixin, moesin) domain and at least one PDZ (PSD-95/Discs large/Zonula-occuldens-1) domain. FRMPD4, also known as Preso, also contains another protein interaction domain termed WW (domain with two conserved Trp residues) at its amino terminus. It was identified through a yeast two-hybrid screen using the PDZ domain of PSD-95 as bait and is highly expressed in multiple regions of the brain and is enriched in the postsynaptic density (PSD) fractions. Overexpression of FRMPD4 in cultured hippocampal neurons significantly increased the linear density of dendritic spines without changing their length and width; conversely, knockdown experiments using RNAi caused a decrease in spine density, indicating FRMPD4 positively regulates dendritic spine density but not morphology. The decreased level of FRMPD4 also resulted in reduced levels of excitatory synaptic transmission, suggesting that FRMPD4 is required for maintenance of excitatory synaptic transmission.

FRMPD4 Antibody - References

An N, Blumer JB, Bernard ML. The PDZ and Band 4.1 containing protein Frmpd1 regulates the subcellular location of activator of G-protein signaling 3 and its interaction with G-proteins. J. Biol. Chem.2008; 283:24718-28.
Stenzel N, Fetzer CP, Heumann R, et al. PDZ-domain-directed basolateral targeting of the peripheral membrane protein FRMPD2 in epithelial cells. J. Cell Sci.2009; 122:3374-84.
Lee HW, Choi J, Shin H, et al. Preso, a novel PSD-95-interacting FERM and PDZ domain protein that regulates dendritic spine morphogenesis. J. Neurosci.2008; 28:14546-56.