

FRMPD4 Antibody

Catalog # ASC11005

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q12767
Other Accession	NP_055553 , 157502197
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	151151
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	FRMPD4 antibody can be used for detection of FRMPD4 by Western blot at 1 - 2 μ g/mL. Antibody can also be used for immunohistochemistry starting at 5 μ g/mL. For immunofluorescence start at 20 μ g/mL.

Additional Information

Gene ID	9772
Other Names	Uncharacterized protein KIAA0195, Transmembrane protein 94, KIAA0195, TMEM94
Target/Specificity	KIAA0195;
Reconstitution & Storage	FRMPD4 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.
Precautions	FRMPD4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TMEM94 (HGNC:28983)
Function	Could function in the uptake of Mg(2+) from the cytosol into the endoplasmic reticulum and regulate intracellular Mg(2+) homeostasis.
Cellular Location	Endoplasmic reticulum membrane; Multi-pass membrane protein
Tissue Location	Expressed ubiquitously.

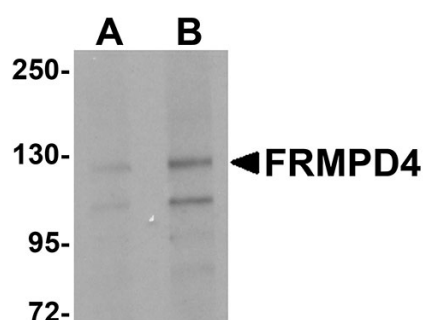
Background

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-occludens-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.

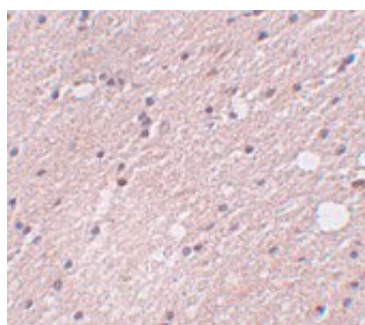
References

- 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, Fetzter 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.

Images

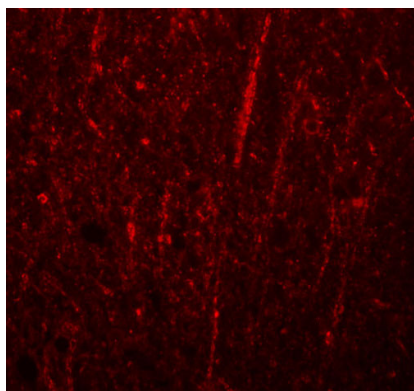


Western blot analysis of FRMPD4 in SK-N-SH cell lysate with FRMPD4 antibody at (A) 1 and (B) 2 $\mu\text{g/mL}$.



Immunohistochemistry of FRMPD4 in human brain tissue with FRMPD4 antibody at 5 $\mu\text{g/mL}$.

Immunofluorescence of FRMPD4 in human brain tissue with FRMPD4 antibody at 20 $\mu\text{g/mL}$.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.