

FRMPD2 (C-14): sc-138284

BACKGROUND

FERM domains are roughly 150 amino acids in length and are found in a number of cytoskeletal-associated proteins such as ezrin, radixin, moesin and 4.1 (erythrocyte membrane protein band 4.1), where they provide a link between cytoskeletal signals and membrane dynamics. FRMPD2 (FERM and PDZ domain-containing protein 2), also known as PDZD5C (PDZ domain-containing protein 5C) or PDZK4 (PDZ domain-containing protein 4), is a 1,309 amino acid protein containing one FERM domain, a KIND domain, and 3 PDZ (DHR) domains. Localizing to cytoplasm and basolateral cell membrane, FRMPD2 is expressed in epithelial cells and may play a role in the regulation of tight junction formation. FRMPD2 exists as five alternatively spliced isoforms and is encoded by a gene that maps to human chromosome 10q11.22.

REFERENCES

1. Strausberg, R.L., et al. 2002. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. *Proc. Natl. Acad. Sci. USA* 99: 16899-16903.
2. Deloukas, P., et al. 2004. The DNA sequence and comparative analysis of human chromosome 10. *Nature* 429: 375-381.
3. Grupe, A., et al. 2006. A scan of chromosome 10 identifies a novel locus showing strong association with late-onset Alzheimer disease. *Am. J. Hum. Genet.* 78: 78-88.
4. Lamesch, P., et al. 2007. hORFeome v3.1: a resource of human open reading frames representing over 10,000 human genes. *Genomics* 89: 307-315.
5. Stenzel, N., et al. 2009. PDZ-domain-directed basolateral targeting of the peripheral membrane protein FRMPD2 in epithelial cells. *J. Cell Sci.* 122: 3374-3384.
6. Rose, J.E., et al. 2010. Personalized smoking cessation: interactions between nicotine dose, dependence and quit-success genotype score. *Mol. Med.* 16: 247-253.

CHROMOSOMAL LOCATION

Genetic locus: FRMPD2/FRMPD2P1/FRMPDP2 (human) mapping to 10q11.22.

SOURCE

FRMPD2 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of FRMPD2 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138284 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

FRMPD2 (C-14) is recommended for detection of FRMPD2 isoforms 1, 2, 4 and 5, FRMPD2L1 and FRMPD2L2 of human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with FRMPD2 isoform 3, FRMPD1, FRMPD3 or FRMPD4.

Molecular Weight of FRMPD2 isoform 1: 144 kDa.

Molecular Weight of FRMPD2 isoform 2: 141 kDa.

Molecular Weight of FRMPD2 isoform 4: 35 kDa.

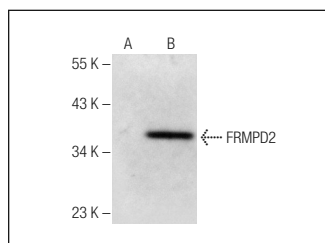
Molecular Weight of FRMPD2 isoform 5: 29 kDa.

Positive Controls: FRMPD2 (h): 293T Lysate: sc-114514.

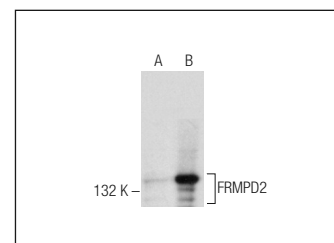
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



FRMPD2 (C-14): sc-138284. Western blot analysis of FRMPD2 expression in non-transfected: sc-117752 (A) and human FRMPD2 transfected: sc-114514 (B) 293T whole cell lysates.



FRMPD2 (C-14): sc-138284. Western blot analysis of FRMPD2 expression in non-transfected: sc-117752 (A) and human FRMPD2 transfected: sc-371960 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.