

FARP2 (D-14): sc-167842

BACKGROUND

FARP2 (FERM, RhoGEF and pleckstrin domain-containing protein 2), also known as PLEKHC3 or FERM domain including RhoGEF (FIR), is a 1,545 amino acid protein that contains one FERM domain, one DH domain and 2 PH domains. It exists as two alternatively spliced isoforms that are abundantly expressed in brain, lung, and testis as well as in embryonic hippocampal and cortical neurons. FARP2 functions as a Rho-guanine nucleotide exchange factor that activates RAC1 and is thought to regulate neurite remodeling of embryonic neurons. Sema3A binding to neuropilin-1 induces the dissociation of FARP2 from plexin-A1, thereby activating FARP2's Rac GEF activity which is critical for repulsion of outgrowing axons and suppression of neuronal adhesion. Downregulation of the FARP2 gene has been implicated in autism.

REFERENCES

1. Kubo, T., et al. 2002. A novel FERM domain including guanine nucleotide exchange factor is involved in Rac signaling and regulates neurite remodeling. *J. Neurosci.* 22: 8504-8513.
2. Kawakita, A., et al. 2003. Developmental regulation of FERM domain including guanine nucleotide exchange factor gene expression in the mouse brain. *Brain Res. Dev. Brain Res.* 144: 181-189.
3. Madura, T., et al. 2003. Expression of FERM domain including guanine nucleotide exchange factor mRNA in adult rat brain. *Brain Res. Mol. Brain Res.* 114: 163-167.
4. Toyofuku, T., et al. 2005. FARP2 triggers signals for Sema3A-mediated axonal repulsion. *Nat. Neurosci.* 8: 1712-1719.
5. Felder, B., et al. 2009. FARP2, HDLBP and PASK are downregulated in a patient with autism and 2q37.3 deletion syndrome. *Am. J. Med. Genet. A* 149A: 952-959.

CHROMOSOMAL LOCATION

Genetic locus: FARP2 (human) mapping to 2q37.3; Farp2 (mouse) mapping to 1 D.

SOURCE

FARP2 (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FARP2 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-167842 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.

RESEARCH USE

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

APPLICATIONS

FARP2 (D-14) is recommended for detection of FARP2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 FARP1.

FARP2 (D-14) is also recommended for detection of FARP2 in additional species, including equine and canine.

Suitable for use as control antibody for FARP2 siRNA (h): sc-94823, FARP2 siRNA (m): sc-145072, FARP2 shRNA Plasmid (h): sc-94823-SH, FARP2 shRNA Plasmid (m): sc-145072-SH, FARP2 shRNA (h) Lentiviral Particles: sc-94823-V and FARP2 shRNA (m) Lentiviral Particles: sc-145072-V.

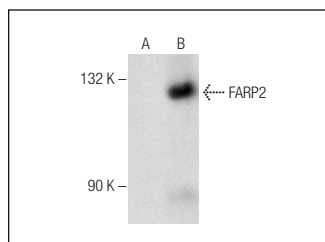
Molecular Weight of FARP2 isoforms: 120/73 kDa.

Positive Controls: FARP2 (m2): 293T Lysate: sc-110246.

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) 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



FARP2 (D-14): sc-167842. Western blot analysis of FARP2 expression in non-transfected: sc-117752 (A) and mouse FARP2 transfected: sc-110246 (B) 293T whole cell lysates.

PROTOCOLS

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

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Try **FARP2 (H-9): sc-390744** or **FARP2 (D-5): sc-377011**, our highly recommended monoclonal alternatives to FARP2 (D-14).