SANTA CRUZ BIOTECHNOLOGY, INC.

# FARP2 (H-199): sc-135121

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## 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.
6. Zhuang, B., et al. 2009. FARP1 promotes the dendritic growth of spinal motor neuron subtypes through transmembrane Semaphorin6A and PlexinA4 signaling. Neuron 61: 359-372.


## CHROMOSOMAL LOCATION

Genetic locus: FARP2 (human) mapping to 2q37.3.

## SOURCE

FARP2 (H-199) is a rabbit polyclonal antibody raised against amino acids 351-549 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.

## 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 (H-199) is recommended for detection of FARP2 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).

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

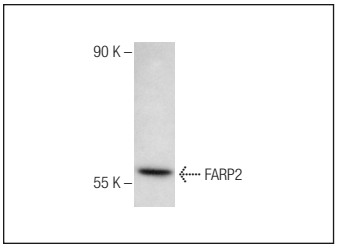
Molecular Weight of FARP2 isoforms: 120/73 kDa.

Positive Controls: SJRH30 cell lysate: sc-2287.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA




FARP2 (H-199): sc-135121. Western blot analysis of FARP2 expression in SJRH30 whole cell lysate.

## PROTOCOLS

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