

# FARP1 (2D4): sc-293249

## BACKGROUND

FARP1 (FERM, RhoGEF (ARHGEF) and pleckstrin domain protein 1), also known as PLEKHC2 or CDEP, is a 1,045 amino acid protein that contains one FERM domain, one DH domain and two PH domains. Existing as multiple alternatively spliced isoforms that are expressed in fetal heart, brain and spleen, as well as in adult lung, kidney and testis, FARP1 is thought to function as a Rho-guanine nucleotide exchange factor that may play a role in linking the cell membrane to the cytoskeleton. The gene encoding FARP1 maps to human chromosome 13, which houses over 400 genes, such as BRCA2 and RB1, and comprises nearly 4% of the human genome. Trisomy 13, also known as Patau syndrome, is deadly and the few who survive past one year suffer from permanent neurologic defects, difficulty eating and vulnerability to serious respiratory infections.

## REFERENCES

1. Koyano, Y., et al. 1997. Molecular cloning and characterization of CDEP, a novel human protein containing the ezrin-like domain of the band 4.1 superfamily and the Dbl homology domain of Rho guanine nucleotide exchange factors. *Biochem. Biophys. Res. Commun.* 241: 369-375.
2. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 602654. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Deng, H., et al. 2006. Examination of the SLITRK1 gene in Caucasian patients with Tourette syndrome. *Acta Neurol. Scand.* 114: 400-402.
4. Giacinti, C. and Giordano, A. 2006. RB and cell cycle progression. *Oncogene* 25: 5220-5227.
5. Grados, M.A. and Walkup, J.T. 2006. A new gene for Tourette's syndrome: a window into causal mechanisms? *Trends Genet.* 22: 291-293.
6. Bugge, M., et al. 2007. Non-disjunction of chromosome 13. *Hum. Mol. Genet.* 16: 2004-2010.
7. 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: FARP1 (human) mapping to 13q32.2.

## SOURCE

FARP1 (2D4) is a mouse monoclonal antibody raised against amino acids 471-549 of FARP1 of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>2a</sub> kappa light chain 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.

## APPLICATIONS

FARP1 (2D4) is recommended for detection of FARP1 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

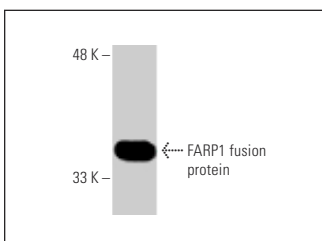
Suitable for use as control antibody for FARP1 siRNA (h): sc-77315, FARP1 shRNA Plasmid (h): sc-77315-SH and FARP1 shRNA (h) Lentiviral Particles: sc-77315-V.

Molecular Weight of FARP1 isoforms: 119/122 kDa.

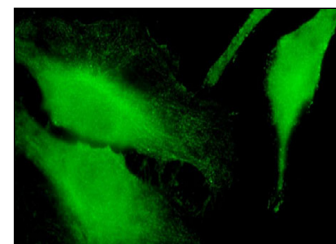
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



FARP1 (2D4): sc-293249. Western blot analysis of human recombinant FARP1 fusion protein.



FARP1 (2D4): sc-293249. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and membrane localization.

## SELECT PRODUCT CITATIONS

1. Libanje, F., et al. 2019. ROCK2 inhibition triggers the collective invasion of colorectal adenocarcinomas. *EMBO J.* 38: e99299.
2. Kleffman, K., et al. 2022. Melanoma-secreted Amyloid β suppresses neuroinflammation and promotes brain metastasis. *Cancer Discov.* 12: 1314-1335.

## RESEARCH USE

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