

CYFIP2 (D-15): sc-54803

BACKGROUND

CYFIP2 (cytoplasmic FMR1-interacting protein 2, p53-inducible protein 121) is a 1,278 amino acid protein encoded by the human gene CYFIP2. CYFIP2 belongs to the CYFIP family and is involved in T cell adhesion and p53-dependent induction of apoptosis. It interacts with FMR1, FXR1 and FXR2 and is a component of the WAVE1 complex composed of Abi-2, CYFIP2, C3orf10/HSPC300, NAP125 and WASF1/WAVE1. Upon binding to activated Rac 1, CYFIP2 causes the complex to dissociate, releasing activated WASF1. The CYFIP2 promoter contains a p53-responsive element that confers p53 binding as well as transcriptional activation of a heterologous reporter. Induced expression of CYFIP2 is sufficient for caspase activation and cellular apoptosis, reminiscent of p53 activation.

REFERENCES

1. Schenck, A., et al. 2001. A highly conserved protein family interacting with the fragile X mental retardation protein (FMRP) and displaying selective interactions with FMRP-related proteins FXR1P and FXR2P. *Proc. Natl. Acad. Sci. USA* 98: 8844-8849.
2. Schenck, A., et al. 2003. CYFIP/Sra-1 controls neuronal connectivity in *Drosophila* and links the Rac1 GTPase pathway to the fragile X protein. *Neuron* 38: 887-898.
3. Mayne, M., et al. 2004. CYFIP2 is highly abundant in CD4+ cells from multiple sclerosis patients and is involved in T cell adhesion. *Eur. J. Immunol.* 34: 1217-1227.
4. Levanon, E.Y., et al. 2005. Evolutionarily conserved human targets of adenosine to inosine RNA editing. *Nucleic Acids Res.* 33: 1162-1168.
5. Morris, C.P., et al. 2007. Unravelling the molecular control of calvarial suture fusion in children with craniosynostosis. *BMC Genomics* 8: 458.
6. Cho, Y.J., et al. 2007. CYFIP2, a direct p53 target, is leptomycin-B sensitive. *Cell Cycle* 6: 95-103.

CHROMOSOMAL LOCATION

Genetic locus: CYFIP2 (human) mapping to 5q33.3; Cyfip2 (mouse) mapping to 11 B1.1.

SOURCE

CYFIP2 (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CYFIP2 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-54803 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

CYFIP2 (D-15) is recommended for detection of CYFIP2 of mouse, rat and 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).

CYFIP2 (D-15) is also recommended for detection of CYFIP2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CYFIP2 siRNA (h): sc-62175, CYFIP2 siRNA (m): sc-62176, CYFIP2 shRNA Plasmid (h): sc-62175-SH, CYFIP2 shRNA Plasmid (m): sc-62176-SH, CYFIP2 shRNA (h) Lentiviral Particles: sc-62175-V and CYFIP2 shRNA (m) Lentiviral Particles: sc-62176-V.

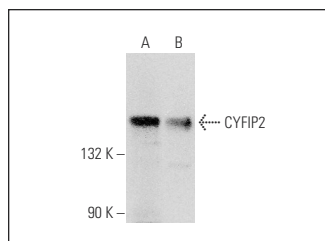
Molecular Weight of CYFIP2: 148 kDa.

Positive Controls: mouse brain extract: sc-2253 or human brain tissue extract.

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



CYFIP2 (D-15): sc-54803. Western blot analysis of CYFIP2 expression in human brain (A) and mouse brain (B) tissue extracts.

RESEARCH USE

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

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Try **CYFIP2 (6-YD16): sc-134308**, our highly recommended monoclonal alternative to CYFIP2 (D-15).