

RUFY2 (E-14): sc-165411

BACKGROUND

RUFY2 (RUN and FYVE domain-containing protein 2) is a 655 amino acid protein that contains a RUN domain and a C-terminal FYVE-type zinc finger with 2 coiled-coil domains in-between. Localizing to nucleus, RUFY2 demonstrates highest expression in amygdala, but also is expressed in the rest of the brain, lung and testis. Believed to be involved with zinc ion binding, RUFY2 interacts with Bmx. Existing as four alternatively spliced isoforms, the RUFY2 gene is conserved in chimpanzee, canine, bovine, mouse, rat, chicken, zebrafish and fruit fly, and maps to human chromosome 10q21.3. The RUFY2 gene maps to a region of chromosome 10q that has been linked to both late-onset Alzheimer disease and elevated plasma levels of pathogenic β -amyloid. Spanning nearly 135 million base pairs, chromosome 10 makes up approximately 4.5% of total DNA in cells and encodes nearly 1,200 genes. Defects in some of the genes that map to chromosome 10 are associated with Charcot-Marie Tooth disease, Jackson-Weiss syndrome, Usher syndrome, nonsyndromic deafness, Wolman's syndrome, Cowden syndrome, multiple endocrine neoplasia type 2 and porphyria.

REFERENCES

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- Yang, J., et al. 2002. Interaction between tyrosine kinase Etk and a RUN domain- and FYVE domain-containing protein RUFY1. A possible role of ETK in regulation of vesicle trafficking. *J. Biol. Chem.* 277: 30219-30226.
- Berger, P., et al. 2002. Molecular cell biology of Charcot-Marie-Tooth disease. *Neurogenetics* 4: 1-15.
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- Majercak, J., et al. 2006. LRRTM3 promotes processing of amyloid-precursor protein by BACE1 and is a positional candidate gene for late-onset Alzheimer's disease. *Proc. Natl. Acad. Sci. USA* 103: 17967-17972.

CHROMOSOMAL LOCATION

Genetic locus: RUFY2 (human) mapping to 10q21.3; Rufy2 (mouse) mapping to 10 B4.

SOURCE

RUFY2 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RUFY2 of human origin.

RESEARCH USE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-165411 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

RUFY2 (E-14) is recommended for detection of RUFY2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 RUFY1 or RUFY4.

RUFY2 (E-14) is also recommended for detection of RUFY2 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for RUFY2 siRNA (h): sc-90742, RUFY2 siRNA (m): sc-153173, RUFY2 shRNA Plasmid (h): sc-90742-SH, RUFY2 shRNA Plasmid (m): sc-153173-SH, RUFY2 shRNA (h) Lentiviral Particles: sc-90742-V and RUFY2 shRNA (m) Lentiviral Particles: sc-153173-V.

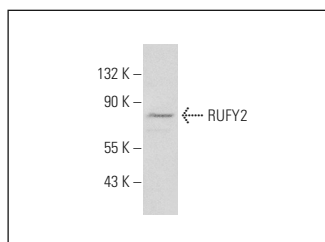
Molecular Weight of RUFY2 isoforms 1/2/3/4: 75/70/74/46 kDa.

Positive Controls: NCI-H460 whole cell lysate: sc-364235.

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



RUFY2 (E-14): sc-165411. Western blot analysis of RUFY2 expression in NCI-H460 whole cell lysate.

STORAGE

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