

NUFIP1 (K-15): sc-84270

BACKGROUND

NUFIP1 (nuclear fragile X mental retardation-interacting protein 1) is a 495 amino acid protein that localizes to the nucleus and can interact with FMR1 (fragile X mental retardation protein) and BRCA1, a breast and ovarian-specific tumor suppressor. Through its interaction with FMR1, NUFIP1 is thought to shuttle specific mRNPs to active neuronal synapses, thereby regulating the translation of synaptic plasticity-related mRNA. The close interaction of NUFIP1 with FMR1, a protein that is essential for proper dendritic spine maturation, suggests close involvement in neuronal development. Interaction of NUFIP1 with BRCA1 results in the formation of a complex which binds the positive elongation factor P-TEFb, thus stimulating RNA polymerase II (pol II) transcription. When associated with BRAC1, NUFIP1 acts as a transcriptional activator contributing to tumor suppressor gene expression. NUFIP1 contains one C₂H₂-type zinc finger and is expressed throughout the body.

REFERENCES

1. Bardoni, B., et al. 2000. A novel RNA-binding nuclear protein that interacts with the fragile X mental retardation (FMR1) protein. *Hum. Mol. Genet.* 8: 2557-2566.
2. Bardoni, B., et al. 2000. Assignment of NUFIP1 (nuclear FMRP interacting protein 1) gene to chromosome 13q14 and assignment of a pseudogene to chromosome 6q12. *Cytogenet. Cell Genet.* 89: 11-13.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604354. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Bardoni, B., et al. 2003. NUFIP1 (nuclear FMRP interacting protein 1) is a nucleocytoplasmic shuttling protein associated with active synaptosomes. *Exp. Cell Res.* 289: 95-107.
5. Cabart, P., et al. 2004. BRCA1 cooperates with NUFIP and P-TEFb to activate transcription by RNA polymerase II. *Oncogene* 23: 5316-5329.
6. McKeegan, K.S., et al. 2007. A dynamic scaffold of pre-snoRNP factors facilitates human box C/D snoRNP assembly. *Mol. Cell. Biol.* 27: 6782-6793.

CHROMOSOMAL LOCATION

Genetic locus: NUFIP1 (human) mapping to 13q14.12; Nufip1 (mouse) mapping to 14 D3.

SOURCE

NUFIP1 (K-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of NUFIP1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-84270 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

NUFIP1 (K-15) is recommended for detection of NUFIP1 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).

NUFIP1 (K-15) is also recommended for detection of NUFIP1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NUFIP1 siRNA (h): sc-105367, NUFIP1 siRNA (m): sc-150115, NUFIP1 shRNA Plasmid (h): sc-105367-SH, NUFIP1 shRNA Plasmid (m): sc-150115-SH, NUFIP1 shRNA (h) Lentiviral Particles: sc-105367-V and NUFIP1 shRNA (m) Lentiviral Particles: sc-150115-V.

Molecular Weight of NUFIP1: 70 kDa.

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) 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.

STORAGE

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

PROTOCOLS

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


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Satisfaction
Guaranteed

Try **NUFIP1 (2662C1a): sc-81567**, our highly recommended monoclonal alternative to NUFIP1 (K-15).