

Tip41 (G-13): sc-165701

BACKGROUND

Tip41 [TOR signaling pathway regulator-like (*S. cerevisiae*)], also known as TIPRL, putative MAPK-activating protein PM10 or type 2A-interacting protein, is a 272 amino acid protein that belongs to the TIP41 family. Localizing to the cytoplasm, Tip41 exists as two alternatively spliced isoforms and becomes phosphorylated upon DNA damage. Tip41 may act as an inhibitory regulator of PP2A-C α / β , PPX and PP6 and may also play a role in regulation of ATM/ATR signaling pathway controlling DNA replication and repair. The gene encoding Tip41 maps to human chromosome 1q24.2 and mouse chromosome 1 H2.3. Chromosome 1 is the largest human chromosome, spanning about 260 million base pairs and making up 8% of the human genome. There are about 3,000 genes on chromosome 1, and considering the great number of genes there are also a large number of diseases associated with chromosome 1, including Stickler syndrome, Parkinson's disease and Gaucher disease.

REFERENCES

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2. Jacinto, E., et al. 2001. TIP41 interacts with TAP42 and negatively regulates the TOR signaling pathway. *Mol. Cell* 8: 1017-1026.
3. Oliveira, S.A., et al. 2005. Identification of risk and age-at-onset genes on chromosome 1p in Parkinson disease. *Am. J. Hum. Genet.* 77: 252-264.
4. Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. *Nature* 441: 315-321.
5. Smetana, J.H. and Zanchin, N.I. 2007. Interaction analysis of the heterotrimer formed by the phosphatase 2A catalytic subunit, α 4 and the mammalian ortholog of yeast Tip41 (TIPRL). *FEBS J.* 274: 5891-5904.
6. McConnell, J.L., et al. 2007. Identification of a PP2A-interacting protein that functions as a negative regulator of phosphatase activity in the ATM/ATR signaling pathway. *Oncogene* 26: 6021-6030.
7. Betarbet, R., et al. 2008. Fas-associated factor 1 and Parkinson's disease. *Neurobiol. Dis.* 31: 309-315.

CHROMOSOMAL LOCATION

Genetic locus: TIPRL (human) mapping to 1q24.2; Tiprl (mouse) mapping to 1 H2.3.

SOURCE

Tip41 (G-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Tip41 of human origin.

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.

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-165701 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Tip41 (G-13) is recommended for detection of Tip41 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 other Tip family members.

Tip41 (G-13) is also recommended for detection of Tip41 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Tip41 siRNA (h): sc-78723, Tip41 siRNA (m): sc-154281, Tip41 shRNA Plasmid (h): sc-78723-SH, Tip41 shRNA Plasmid (m): sc-154281-SH, Tip41 shRNA (h) Lentiviral Particles: sc-78723-V and Tip41 shRNA (m) Lentiviral Particles: sc-154281-V.

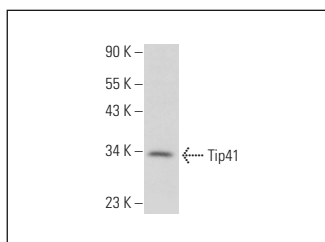
Molecular Weight of Tip41 isoforms 1/2: 31/20 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

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



Tip41 (G-13): sc-165701. Western blot analysis of Tip41 expression in NIH/3T3 whole cell lysate.

PROTOCOLS

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