

Tip41 (B-3): sc-398145

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

1. Lau, E.K., et al. 1999. Two novel polymorphic sequences in the glucocerebrosidase gene region enhance mutational screening and founder effect studies of patients with Gaucher disease. *Hum. Genet.* 104: 293-300.
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.

CHROMOSOMAL LOCATION

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

SOURCE

Tip41 (B-3) is a mouse monoclonal antibody raised against amino acids 1-180 mapping at the N-terminus of Tip41 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Tip41 (B-3) is available conjugated to agarose (sc-398145 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398145 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398145 PE), fluorescein (sc-398145 FITC), Alexa Fluor[®] 488 (sc-398145 AF488), Alexa Fluor[®] 546 (sc-398145 AF546), Alexa Fluor[®] 594 (sc-398145 AF594) or Alexa Fluor[®] 647 (sc-398145 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-398145 AF680) or Alexa Fluor[®] 790 (sc-398145 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Tip41 (B-3) is recommended for detection of Tip41 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

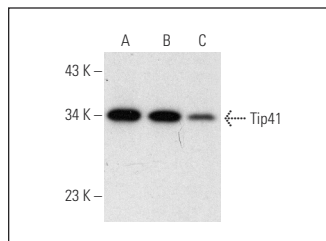
Molecular Weight of Tip41 isoforms 1/2: 31/20 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, BJAB whole cell lysate: sc-2207 or K-562 whole cell lysate: sc-2203.

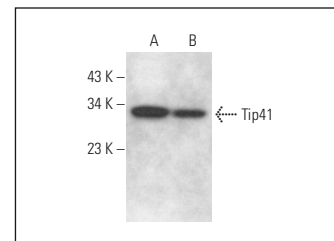
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



Tip41 (B-3): sc-398145. Western blot analysis of Tip41 expression in K-562 (A), BJAB (B) and HeLa (C) whole cell lysates.



Tip41 (B-3): sc-398145. Western blot analysis of Tip41 expression in Raji (A) and RAW 264.7 (B) whole cell lysates.

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.

PROTOCOLS

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

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