SANTA CRUZ BIOTECHNOLOGY, INC.

MTBP (N-13): sc-47174

BACKGROUND

p53 is a critical coordinator of a wide range of stress responses. To facilitate a rapid response to stress, p53 is produced constitutively, but is negatively regulated by MDM2. MTBP (also designated MDM2BP or MDM2 transformed 3T3 cell double minute 2, p53 binding protein (mouse) binding protein) is a growth regulator that modulates the activity of MDM2 towards itself and p53, and thereby contributes to MDM2-dependent p53 homeostasis in cells. Specifically, MTBP promotes MDM2-mediated ubiquitination and degradation of p53 and also MDM2 stabilization. MTBP transcript is most abundant in thymus, testis and ovary.

REFERENCES

1. Boyd, M.T., Vlatkovic, N. and Haines, D.S. 2000. A novel cellular protein (MTBP) binds to is suppressed by MDM2. J. Biol. Chem. 275: 31883-31890.
2. Boyd, M.T., Zimonjic, D.B., Popescu, N.C., Athwal, R. and Haines, D.S. 2000. Assignment of 8q24 by *in situ* hybridization. Cytogenet. Cell Genet. 90: 64-65.
3. Brady, M., Vlatkovic, N. and Boyd, M.T. 2005. Regulation of p53 and MDM2 activity by MTBP. Mol. Cell. Biol. 25: 545-553.
4. Cheah, P.L. and Looi, L.M. 2005. p53: an overview of over two decades of study. Malays. J. Pathol. 23: 9-16.
5. Levav-Cohen, Y., Haupt, S. and Haupt, Y. 2005. MDM2 in growth signaling and cancer. Growth Factors 23: 183-192.
6. Stríteská, D. 2006. The tumor supressor gene p53. Acta Medica Suppl. 48: 21-25.

CHROMOSOMAL LOCATION

Genetic locus: MTBP (human) mapping to 8q24.12; Mtbp (mouse) mapping to 15 D1.

SOURCE

MTBP (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of MTBP 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-47174 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.

PROTOCOLS

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

APPLICATIONS

MTBP (N-13) is recommended for detection of MTBP of mouse 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).

Suitable for use as control antibody for MTBP siRNA (h): sc-61080, MTBP siRNA (m): sc-61081, MTBP shRNA Plasmid (h): sc-61080-SH, MTBP shRNA Plasmid (m): sc-61081-SH, MTBP shRNA (h) Lentiviral Particles: sc-61080-V and MTBP shRNA (m) Lentiviral Particles: sc-61081-V.

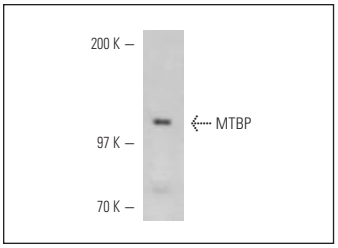
Molecular Weight of MTBP: 104 kDa.

Positive Controls: 3T3-L1 cell lysate: sc-2243.

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



MTBP (N-13): sc-47174. Western blot analysis of MTBP expression in 3T3-L1 whole cell lysate.

RESEARCH USE

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