SANTA CRUZ BIOTECHNOLOGY, INC.

TP53INP1 (S-18): sc-79751



The Power to Question

BACKGROUND

TP53INP1 (tumor protein p53-inducible nuclear protein 1), also known as p53DINP1, SIP or Teap, is a 240 amino acid protein that localizes to nuclear bodies and exists as two alternatively spliced isoforms, designated p53DINP1a and p53DINP1b. Expressed ubiquitously with higher expression in testis, pancreas and spleen tissue, TP53INP1 functions in response to double-stranded DNA breaks and regulates p53-mediated apoptosis, specifically by phosphorylating human p53 at Ser 46, an event that leads to cell death. Additionally, TP53INP1 is thought to interact with p73 and may be involved in the regulation of p73-controlled cell cycle progression. TP53INP1 expression is downregulated in pancreatic ductal adenocarcinomas, suggesting that, via its ability to induce cell death, TP53INP1 plays a role in tumor suppression.

REFERENCES

- 1. Okamura, S., Arakawa, H., Tanaka, T., Nakanishi, H., Ng, C.C., Taya, Y., Monden, M. and Nakamura, Y. 2001. p53DINP1, a p53-inducible gene, regulates p53-dependent apoptosis. Mol. Cell 8: 85-94.
- Nowak, J., Tomasini, R., Mattei, M.G., Azizi Samir, L.A., Dagorn, J.C., Dusetti, N., Iovanna, J.L. and Pébusque, M.J. 2002. Assignment of tumor protein p53 induced nuclear protein 1 (TP53INP1) gene to human chromosome band 8q22 by in situ hybridization. Cytogenet. Genome Res. 97: 140E.
- Tomasini, R., Samir, A.A., Pebusque, M.J., Calvo, E.L., Totaro, S., Dagorn, J.C., Dusetti, N.J. and Iovanna, J.L. 2002. P53-dependent expression of the stress-induced protein (SIP). Eur. J. Cell Biol. 81: 294-301.
- 4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606185. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Tomasini, R., Samir, A.A., Carrier, A., Isnardon, D., Cecchinelli, B., Soddu, S., Malissen, B., Dagorn, J.C., Iovanna, J.L. and Dusetti, N.J. 2003. TP53INP1s and homeodomain-interacting protein kinase-2 (HIPK2) are partners in regulating p53 activity. J. Biol. Chem. 278: 37722-37729.
- Hershko, T., Chaussepied, M., Oren, M. and Ginsberg, D. 2005. Novel link between E2F and p53: proapoptotic cofactors of p53 are transcriptionally upregulated by E2F. Cell Death Differ. 12: 377-383.
- Tomasini, R., Seux, M., Nowak, J., Bontemps, C., Carrier, A., Dagorn, J.C., Pεbusque, M.J., Iovanna, J.L. and Dusetti, N.J. 2005. TP53INP1 is a novel p73 target gene that induces cell cycle arrest and cell death by modulating p73 transcriptional activity. Oncogene 24: 8093-8104.
- Jiang, P.H., Motoo, Y., Garcia, S., Iovanna, J.L., Pébusque, M.J. and Sawabu, N. 2006. Down-expression of tumor protein p53-induced nuclear protein 1 in human gastric cancer. World J. Gastroenterol. 12: 691-696.
- Gironella, M., Seux, M., Xie, M.J., Cano, C., Tomasini, R., Gommeaux, J., Garcia, S., Nowak, J., Yeung, M.L., Jeang, K.T., Chaix, A., Fazli, L., Motoo, Y., Wang, Q., Rocchi, P., Russo, A., Gleave, M., Dagorn, J.C., Iovanna, J.L., Carrier, A., Pébusque, M.J. and Dusetti, N.J. 2007. Tumor protein 53induced nuclear protein 1 expression is repressed by miR-155, and its restoration inhibits pancreatic tumor development. Proc. Natl. Acad. Sci. USA 104: 16170-16175.

CHROMOSOMAL LOCATION

Genetic locus: TP53INP1 (human) mapping to 8q22.1; Trp53inp1 (mouse) mapping to 4 A1.

SOURCE

TP53INP1 (S-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TP53INP1 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-79751 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TP53INP1 (S-18) is recommended for detection of TP53INP1 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).

Suitable for use as control antibody for TP53INP1 siRNA (h): sc-76715, TP53INP1 siRNA (m): sc-76716, TP53INP1 shRNA Plasmid (h): sc-76715-SH, TP53INP1 shRNA Plasmid (m): sc-76716-SH, TP53INP1 shRNA (h) Lentiviral Particles: sc-76715-V and TP53INP1 shRNA (m) Lentiviral Particles: sc-76716-V.

Molecular Weight of TP53INP1: 27 kDa.

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) Immunofluo-rescence: use donkey anti-goat IgG-TR: sc-2783 (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.

RESEARCH USE

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

PROTOCOLS

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