p73 (H-79): sc-7957

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BACKGROUND

The p53 gene is a widely studied anti-oncogene, or tumor suppressor gene. The p53 gene product can act as a negative regulator of cell growth in response to DNA damage. Mutations and allelic loss of the p53 gene have been associated with malignant transformation in a wide variety of human tumors. p53 shares considerable sequence similarity with p73, a gene that maps to a region in chromosome 1 that is frequently deleted in neuroblastomas. However, p73 does not appear to be activated by DNA damaging agents. The p73 isoform p73α inhibits drug-induced apoptosis in small cell lung carcinoma cells, while the p73 isoform p73β promotes it. p73α also prevents Bax activation, mitochondrial dysfunction, caspase activation and is able to reduce apoptosis induced by the BH3-only protein PUMA (p53 up-regulated modulator of apoptosis). There is an equilibrium between p73α and p73β, demonstrated by the fact that p73α inhibits the pro-apoptotic effect of p73β.

CHROMOSOMAL LOCATION

Genetic locus: TP73 (human) mapping to 1p36.32; Trp73 (mouse) mapping to 4 E2.

SOURCE

p73 (H-79) is a rabbit polyclonal antibody raised against amino acids 1-80 mapping at the N-terminus of p73α 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.

Available as TransCruz reagent for ChIP application, sc-7957 X, 200 µg/0.1 ml.

APPLICATIONS

p73 (H-79) is recommended for detection of all p73 isoforms of mouse, rat 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 p73 siRNA (h): sc-36167, p73 siRNA (m): sc-36168, p73 shRNA Plasmid (h): sc-36167-SH, p73 shRNA Plasmid (m): sc-36168-SH, p73 shRNA (h) Lentiviral Particles: sc-36167-V and p73 shRNA (m) Lentiviral Particles: sc-36168-V.

p73 (H-79) X TransCruz antibody is recommended for ChIP assays.

Molecular Weight of p73: 73 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, A549 cell lysate: sc-2413 or HeLa whole cell lysate: sc-2200.

RESEARCH USE

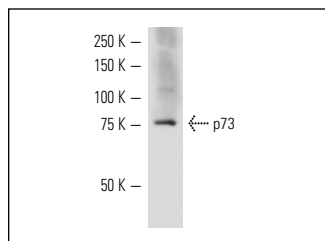For research use only, not for use in diagnostic procedures.

PROTOCOLS

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

STORAGE

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

DATA

p73 (H-79): sc-7957. Western blot analysis of p73 expression in HL-60 whole cell lysate.

SELECT PRODUCT CITATIONS

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2. Koida, N., et al. 2008. Inhibitory role of Plk1 in the regulation of p73-dependent apoptosis through physical interaction and phosphorylation. J. Biol. Chem. 283: 8555-8563.

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4. Wetterskog, D., et al. 2009. Dysregulation of platelet-derived growth factor β-receptor expression by δNp73 in neuroblastoma. Mol. Cancer Res. 7: 2031-2039.

5. Bui, T., et al. 2009. ZEB1 links p63 and p73 in a novel neuronal survival pathway rapidly induced in response to cortical ischemia. PLoS ONE 4: e4373.

6. Zhang, C., et al. 2010. PIASy interacts with p73α and regulates cell cycle in HEK293 cells. Cell. Immunol. 263: 235-240.

7. Caracciolo, V., et al. 2010. Cross-talk between T-Ag presence and pRb family and p53/p73 signaling in mouse and human medulloblastoma. J. Cell. Biochem. 110: 182-190.

8. Klein, A., et al. 2011. Oxidative stress activates the c-Abl/p73 proapoptotic pathway in Niemann-Pick type C neurons. Neurobiol. Dis. 41: 209-218.

9. Lin, C., et al. 2012. NOXA-induced alterations in the Bax/Smac axis enhance sensitivity of ovarian cancer cells to cisplatin. PLoS ONE 7: e36722.

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Try **p73 (E-4): sc-17823** or **p73 (5B429): sc-56191**, our highly recommended monoclonal alternatives to p73 (H-79). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **p73 (E-4): sc-17823**.