SANTA CRUZ BIOTECHNOLOGY, INC.

p73α (C-17): sc-7238

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

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 upregulated 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

p73α (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-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.

Blocking peptide available for competition studies, sc-7238 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

p73α (C-17) is recommended for detection of p73α 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 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.

Molecular Weight of p73α: 73 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or A549 cell lysate: sc-2413.

STORAGE

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

SELECT PRODUCT CITATIONS

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4. Strano, S., et al. 2002. Physical interaction with human tumor-derived p53 mutants inhibits p63 activities. J. Biol. Chem. 277: 18817-18826.
5. Gonzalez, S., et al. 2003. p73α regulation by Chk1 in response to DNA damage. Mol. Cell. Biol. 23: 8161-8171.
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8. Rossi, M., et al. 2005. The ubiquitin-protein ligase Itch regulates p73 stability. EMBO J. 24: 836-848.
9. Strano, S., et al. 2005. The transcriptional coactivator Yes-associated protein drives p73 gene-target specificity in response to DNA Damage. Mol. Cell 18: 447-459.
10. Lapi, E., et al. 2006. S100A2 gene is a direct transcriptional target of p53 homologues during keratinocyte differentiation. Oncogene 25: 3628-3637.
11. Yu, J., et al. 2007. A network of p73, p53 and Egr1 is required for efficient apoptosis in tumor cells. Cell Death Differ. 14: 436-446.
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15. Chang, H., et al. 2010. CKS1B nuclear expression is inversely correlated with $p27^{Kip1}$ expression and is predictive of an adverse survival in patients with multiple myeloma. Haematologica 95: 1542-1547.

RESEARCH USE

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