

TA* p63 (D-20): sc-8608

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. p73 shares a high degree of homology with p53, and appears to have similar growth inhibiting and apoptosis-promoting functions. However, unlike p53, the expression of p73 is not upregulated in response to DNA damage. p73 can, when overproduced, activate the p53-responsive gene p21. p63 has also been identified based on its similarities with p53. The p63 gene encodes multiple isoforms with variable functions. p63 α (also designated p51B or KET), p63 β and p63 γ (also designated p51A), as well as corresponding TA*p63 isoforms, contain transactivation domains which have been shown to transactivate p53 reporter genes and induce apoptosis. Δ Np63 isoforms lack the transactivation domain and can act as dominant-negative reagents to inhibit transactivation by p53 and p63.

REFERENCES

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- Kastan, M.B., et al. 1992. A mammalian cell cycle checkpoint pathway utilizing p53 and GADD45 is defective in ataxia-telangiectasia. *Cell* 71: 587-597.
- Zhu, J., et al. 1998. The potential tumor suppressor p73 differentially regulates cellular p53 target genes. *Cancer Res.* 58: 5061-5065.
- De Laurenzi, V., et al. 1998. Two new splice variants, γ and δ , with different transcriptional activity. *J. Exp. Med.* 188: 1763-1768.
- Yang, A., et al. 1998. p63, a p53 homolog at 3q27-29, encodes multiple products with transactivating, death-inducing, and dominant-negative activities. *Mol. Cell* 2: 305-316.

CHROMOSOMAL LOCATION

Genetic locus: TP63 (human) mapping to 3q28; Trp63 (mouse) mapping to 16 B1.

SOURCE

TA* p63 (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of TA* p63 α of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-8608 P, (100 μ g 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.

RESEARCH USE

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

APPLICATIONS

TA* p63 (D-20) is recommended for detection of TA* p63 α , β and γ 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 p63 siRNA (h): sc-36161, p63 siRNA (m): sc-36162, p63 shRNA Plasmid (h): sc-36161-SH, p63 shRNA Plasmid (m): sc-36162-SH, p63 shRNA (h) Lentiviral Particles: sc-36161-V and p63 shRNA (m) Lentiviral Particles: sc-36162-V.

Molecular Weight of TA* p63: 85 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) 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.

SELECT PRODUCT CITATIONS

- Suliman, Y., et al. 2001. p63 Expression is associated with p53 loss in oral-esophageal epithelia of p53-deficient mice. *Cancer Res.* 61: 6467-6473.
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- Liu, G., et al. 2007. The role of Shh transcription activator Gli2 in chick cloacal development. *Dev. Biol.* 303: 448-460.
- Thomason, H.A., et al. 2008. Facial clefting in Tp63 deficient mice results from altered Bmp4, Fgf8 and Shh signaling. *Dev. Biol.* 321: 273-282.
- Hackett, T.L., et al. 2008. Characterization of side population cells from human airway epithelium. *Stem Cells* 26: 2576-2585.
- 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.

PROTOCOLS

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