SANTA CRUZ BIOTECHNOLOGY, INC.

ΔN p73 (N-16): sc-23429

BACKGROUND

The human TP73 gene generates an amino-terminally truncated isoform called ΔN p73. ΔN p73 derives from an alternative promoter in intron 3 and lacks the transactivation domain of full-length TAp73. It is frequently overexpressed in a variety of human cancers, but not in normal tissues. ΔN p73 acts as a potent transdominant inhibitor of wildtype p53 and transactivation-competent TAp73. It efficiently counteracts transactivation function, apoptosis and growth suppression mediated by wildtype p53 and TAp73, and confers drug resistance to wildtype p53 harboring tumor cells. Conversely, downregulation of endogenous ΔN p73 levels by antisense methods alleviates its suppressive action and enhances p53- and TAp73-mediated apoptosis. Accumulation of ΔN p73α induces drug resistance and alteration of apoptosis in human Cytomegalovirus. In addition, methylation is involved in the control of ΔN p73 expression in neuroblastoma.

REFERENCES

1. Zaika, A.I., et al. 2002. ΔN p73, a dominant-negative inhibitor of wildtype p53 and TAp73, is upregulated in human tumors. J. Exp. Med. 196: 765-780.
2. Ishimoto, O., et al. 2002. Possible oncogenic potential of ΔN p73: a newly identified isoform of human p73. Cancer Res. 62: 636-641.
3. Casciano, I., et al. 2002. Expression of ΔN p73 is a molecular marker for adverse outcome in neuroblastoma patients. Cell Death Differ. 9: 246-251.
4. Allart, S., et al. 2002. Human Cytomegalovirus induces drug resistance and alteration of programmed cell death by accumulation of ΔN p73α. J. Biol. Chem. 277: 29063-29068.
5. Casciano, I., et al. 2002. Role of methylation in the control of ΔN p73 expression in neuroblastoma. Cell Death Differ. 9: 343-345.
6. Lee, A.F., et al. 2004. Evidence that ΔN p73 promotes neuronal survival by p53-dependent and p53-independent mechanisms. J. Neurosci. 24: 9174-9184.

CHROMOSOMAL LOCATION

Genetic locus: TP73 (human) mapping to 1p36.3; Trp73 (mouse) mapping to 4 E2.

SOURCE

ΔN p73 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of ΔN p73 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-23429 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.

APPLICATIONS

ΔN p73 (N-16) is recommended for detection of ΔN p73 of 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 shRNA Plasmid (h): sc-36167-SH and p73 shRNA (h) Lentiviral Particles: sc-36167-V.

Molecular Weight of ΔN p73: 73 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.

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.