

ΔN p73 (4H223): sc-70966

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 wild-type p53 and TAp73, is up-regulated 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. Casciano, I., et al. 2002. Role of methylation in the control of ΔN p73 expression in neuroblastoma. *Cell Death Differ.* 9: 343-345.
5. 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.
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 1p36.32; Trp73 (mouse) mapping to 4 E2.

SOURCE

ΔN p73 (4H223) is a mouse monoclonal antibody raised against amino acids 2-13 of ΔN p73 of human origin.

PRODUCT

Each vial contains 100 μg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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

ΔN p73 (4H223) is recommended for detection of ΔN p73 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000); non cross-reactive with full-length p73.

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 ΔN p73: 73 kDa.

SELECT PRODUCT CITATIONS

1. Lin, Y., et al. 2017. Emodin promotes the arrest of human lymphoma Raji cell proliferation through the UHRF1-DNMT3A-ΔN p73 pathways. *Mol. Med. Rep.* 16: 6544-6551.
2. Ji, Z.P., et al. 2018. Transcription activated p73-modulated cyclin D1 expression leads to doxorubicin resistance in gastric cancer. *Exp. Ther. Med.* 15: 1831-1838.
3. Castro-Amaya, A.M., et al. 2022. E6/E7 from β-2-HPVs 122, 38b, and 107 possess transforming properties in a fibroblast model *in vitro*. *Exp. Cell Res.* 414: 113088.

PROTOCOLS

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



See **p73 (E-4): sc-17823** for p73 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.