SANTA CRUZ BIOTECHNOLOGY, INC.

p63 (E-9): sc-398800

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Transcription factor p63 is a widely expressed nuclear protein that exists as 12 isoforms and is a member of the p53 gene family. Alternate promoters encode two main variants, TAp63 and ΔNp63, which are further spliced into at least five isoforms, designated α, β, γ, δ and ε, due to alternative splicing events at the carboxy-terminus. TAp63 is transcribed from an upstream promoter containing a similar transactivation domain to p53, while ΔNp63 is transcribed from a promoter located on intron 3, that results in a unique transactivation domain and distinct biological functions. Considered to be oncogenic, ΔNp63 is required for cell growth and survival and can be dominant-negative over TAp63 and p53. TAp63 can transactivate some p53 target genes and is primarily responsible for tubulogenesis and cyst formation.

REFERENCES

1. De Laurenzi, V., Costanzo, A., Barcaroli, D., Terrinoni, A., Falco, M., Annicchiarico-Petruzzelli, M., Levrero, M. and Melino, G. 1998. Two new p73 splice variants, γ and δ, with different transcriptional activity. J. Exp. Med. 188: 1763-1768.
2. King, K.E., Ponnamperuma, R.M., Gerdes, M.J., Tokino, T., Yamashita, T., Baker, C.C. and Weinberg, W.C. 2006. Unique domain functions of p63 isotypes that differentially regulate distinct aspects of epidermal homeostasis. Carcinogenesis 27: 53-63.
3. Vakonaki, E., Soulitzis, N., Sifakis, S., Papadogianni, D., Koutroulakis, D. and Spandidos, D.A. 2012. Overexpression and ratio disruption of ΔNp63 and TAp63 isoform equilibrium in endometrial adenocarcinoma: correlation with obesity, menopause, and grade I/II tumors. J. Cancer Res. Clin. Oncol. 138: 1271-1278.
4. Warner, S.M., Hackett, T.L., Shaheen, F., Hallstrand, T.S., Kicic, A., Stick, S.M. and Knight, D.A. 2013. Transcription factor p63 regulates key genes and wound repair in human airway epithelial basal cells. Am. J. Respir. Cell Mol. Biol. 49: 978-988.
5. Pignon, J.C., Grisanzio, C., Geng, Y., Song, J., Shivdasani, R.A. and Signoretti, S. 2013. p63-expressing cells are the stem cells of developing prostate, bladder, and colorectal epithelia. Proc. Natl. Acad. Sci. USA 110: 8105-8110.
6. Zhang, Y., Yan, W. and Chen, X. 2014. p63 regulates tubular formation via epithelial-to-mesenchymal transition. Oncogene 33: 1548-1557.

CHROMOSOMAL LOCATION

Genetic locus: TP63 (human) mapping to 3q28.

SOURCE

p63 (E-9) is a mouse monoclonal antibody raised against amino acids 15-151 of ΔN p63α of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

p63 (E-9) is recommended for detection of all p63 isoforms of human origin by Western Blotting (starting dilution 1:100, 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 p63 siRNA (h): sc-36161, p63 shRNA Plasmid (h): sc-36161-SH and p63 shRNA (h) Lentiviral Particles: sc-36161-V.

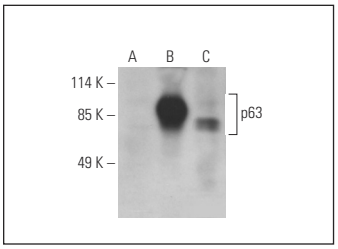
Molecular Weight of p63 isoforms: 45-77 kDa.

Positive Controls: p63 (h): 293T Lysate: sc-115838 or A-431 nuclear extract: sc-2122.

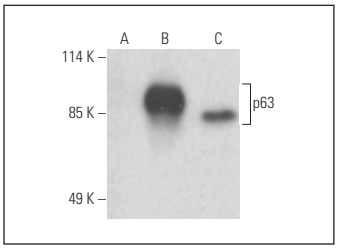
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



p63 (E-9): sc-398800. Western blot analysis of p63 expression in non-transfected 293T: sc-117752 (**A**) and human p63 transfected 293T: sc-115838 (**B**) whole cell lysates and A-431 nuclear extract (**C**). Detection reagent used: m-IgGκ BP-HRP: sc-516102.



p63 (E-9): sc-398800. Western blot analysis of p63 expression in non-transfected: sc-117752 (**A**) and human p63 transfected: sc-115838 (**B**) 293T whole cell lysates and A-431 nuclear extract (**C**).

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.

PROTOCOLS

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