SANTA CRUZ BIOTECHNOLOGY, INC.

p63 (D-9): sc-25268

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.

CHROMOSOMAL LOCATION

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

SOURCE

p63 (D-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_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

p63 (D-9) is available conjugated to agarose (sc-25268 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-25268 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-25268 PE), fluorescein (sc-25268 FITC), Alexa Fluor® 488 (sc-25268 AF488), Alexa Fluor® 546 (sc-25268 AF546), Alexa Fluor® 594 (sc-25268 AF594) or Alexa Fluor® 647 (sc-25268 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-25268 AF680) or Alexa Fluor® 790 (sc-25268 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

p63 (D-9) is recommended for detection of all p63 isoforms of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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), immunohistochemistry (including paraffin-embedded sections) (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.

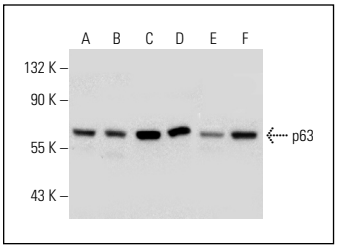
Molecular Weight of p63 isoforms: 45-77 kDa.

Positive Controls: C32 nuclear extract: sc-2136, HeLa nuclear extract: sc-2120 or A-431 whole cell lysate: sc-2201.

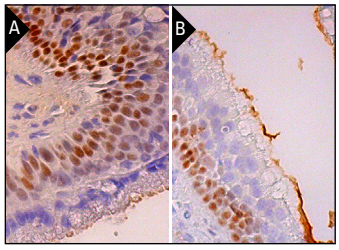
STORAGE

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

DATA



p63 (D-9): sc-25268. Western blot analysis of p63 expression in C32 (**A**), HeLa (**B**), NIH/3T3 (**C**) and KNRK (**D**) nuclear extracts and SK-MEL-28 (**E**) and AT-3 (**F**) whole cell lysates.



p63 (D-9): sc-25268. Immunoperoxidase staining of formalin fixed, paraffin-embedded human nasopharynx (**A**) and human nasopharynx (**B**) tissue showing nuclear staining of respiratory epithelial cells.

SELECT PRODUCT CITATIONS

1. Sasaki, Y., et al. 2005. Identification of pigment epithelium-derived factor as a direct target of the p53 family member genes. Oncogene 24: 5131-5136.
2. Danopoulos, S., et al. 2013. Transient inhibition of FGFR2b-ligands signaling leads to irreversible loss of cellular β-catenin organization and signaling in AER during mouse limb development. PLoS ONE 8: e76248.
3. Fischer, B., et al. 2014. p53 and TAp63 promote keratinocyte proliferation and differentiation in breeding tubercles of the zebrafish. PLoS Genet. 10: e1004048.
4. Troiano, A., et al. 2015. Y-box binding protein-1 is part of a complex molecular network linking ΔNp63α to the PI3K/akt pathway in cutaneous squamous cell carcinoma. J. Cell. Physiol. 230: 2067-2074.
5. Puga, C.C., et al. 2016. The effects of castration followed testosterone supplementation in prostatic complex of *Artibeus planirostris (Chiroptera: Phyllostomidae).* Tissue Cell 48: 252-264.
6. Otto, T., et al. 2017. Cell cycle-targeting microRNAs promote differentiation by enforcing cell-cycle exit. Proc. Natl. Acad. Sci. USA 114: 10660-10665.
7. Qiao, H., et al. 2018. Impeding DNA break repair enables oocyte quality control. Mol. Cell 72: 211-221.e3.
8. Wang, Y., et al. 2019. Dysregulated Tgfbr2/ERK-Smad4/SOX2 signaling promotes lung squamous cell carcinoma formation. Cancer Res. 79: 4466-4479.
9. Li, X., et al. 2020. Clinicopathological characteristics and genetic analysis of pulmonary carcinoid tumors: a single-center retrospective cohort study and literature review. Oncol. Lett. 19: 2446-2456.
10. Shui, J.E., et al. 2021. Prematurity alters the progenitor cell program of the upper respiratory tract of neonates. Sci. Rep. 11: 10799.

RESEARCH USE

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