

# p33ING1 (CAb 3): sc-21728

## BACKGROUND

ING1 (Inhibitor of growth protein 1) is a 422 amino acid protein encoded by the human gene ING1. ING1 belongs to the ING family and contains one PHD-type zinc finger. ING1 cooperates with p53/TP53 in the negative regulatory pathway of cell growth by modulating p53-dependent transcriptional activation. Implicated as a tumor suppressor gene, ING1 is a nuclear protein with several known isoforms, three of which are designated p47ING1 (ING1 precursor), p33ING1 and p24ING1, whose expression varies per tissue. The p33ING1 isoform is expressed in all normal tissues and cells, while the p24ING1 isoform is expressed in testis, liver, and kidney, and is weakly expressed in colon and brain, but not in breast or cultured melanocytes.

## CHROMOSOMAL LOCATION

Genetic locus: ING1 (human) mapping to 13q34; Ing1 (mouse) mapping to 8 A1.1.

## SOURCE

p33ING1 (CAb 3) is a mouse monoclonal antibody raised against recombinant GST-p33ING1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

p33ING1 (CAb 3) is available conjugated to agarose (sc-21728 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-21728 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-21728 PE), fluorescein (sc-21728 FITC), Alexa Fluor® 488 (sc-21728 AF488), Alexa Fluor® 546 (sc-21728 AF546), Alexa Fluor® 594 (sc-21728 AF594) or Alexa Fluor® 647 (sc-21728 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-21728 AF680) or Alexa Fluor® 790 (sc-21728 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## STORAGE

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

## APPLICATIONS

p33ING1 (CAb 3) is recommended for detection of p33ING1 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) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for ING1 siRNA (h): sc-36152, ING1 siRNA (m): sc-36151, ING1 shRNA Plasmid (h): sc-36152-SH, ING1 shRNA Plasmid (m): sc-36151-SH, ING1 shRNA (h) Lentiviral Particles: sc-36152-V and ING1 shRNA (m) Lentiviral Particles: sc-36151-V.

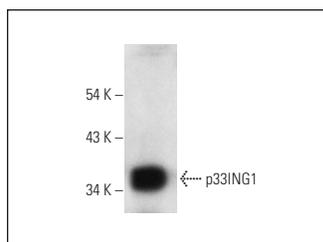
Molecular Weight of p33ING1: 34 kDa.

Positive Controls: IMR-32 nuclear extract: sc-2148, Jurkat whole cell lysate: sc-2204 or HeLa whole cell lysate: sc-2200.

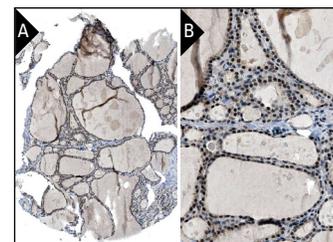
## RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



p33ING1 (CAb 3): sc-21728. Western blot analysis of p33ING1 expression in IMR-32 nuclear extract.



p33ING1 (CAb 3): sc-21728. Immunoperoxidase staining of formalin fixed, paraffin-embedded human thyroid gland tissue showing nuclear staining of glandular cells at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

## SELECT PRODUCT CITATIONS

- Gong, W., et al. 2006. Subcellular targeting of p33<sup>ING1b</sup> by phosphorylation-dependent 14-3-3 binding regulates p21<sup>WAF1</sup> expression. *Mol. Cell. Biol.* 26: 2947-2954.
- Kuo, W.H., et al. 2007. The ING1b tumor suppressor facilitates nucleotide excision repair by promoting chromatin accessibility to XPA. *Exp. Cell Res.* 313: 1628-1638.
- Garate, M., et al. 2008. NAD(P)H quinone oxidoreductase 1 inhibits the proteasomal degradation of the tumour suppressor p33<sup>ING1b</sup>. *EMBO Rep.* 9: 576-581.
- Bigot, N., et al. 2015. ING1b negatively regulates HIF1α protein levels in adipose-derived stromal cells by a SUMOylation-dependent mechanism. *Cell Death Dis.* 6: e1612.
- Zhao, S. and Zheng, H.C. 2020. mRNA and protein of p33ING1 in normal and cancer tissues. *Transl. Cancer Res.* 9: 3623-3633.

## RESEARCH USE

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

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