SANTA CRUZ BIOTECHNOLOGY, INC.

ING1 (C-19): sc-7566

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

REFERENCES

1. Garkavtsev, I., et al. 1998. The candidate tumour suppressor p33ING1 cooperates with p53 in cell growth control. Nature 391: 295-298.
2. Saito, A., et al. 2000. p24ING1-ALT1 and p47ING1-ALT2, distinct alternative transcripts of p33ING1. J. Hum. Genet. 45: 177-181.

CHROMOSOMAL LOCATION

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

SOURCE

ING1 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of ING1 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-7566 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ING1 (C-19) is recommended for detection of p24, p33 and p47ING1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ING1 (C-19) is also recommended for detection of p24, p33 and p47ING1 isoforms in additional species, including canine, bovine, porcine and avian.

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.

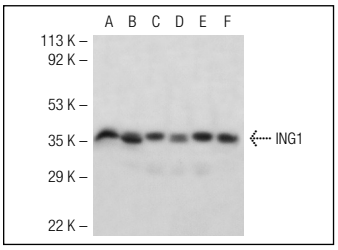
Molecular Weight of ING1 isoforms: 24/34/47 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, A-673 cell lysate: sc-2414 or ING1 (m): 293T Lysate: sc-122316.

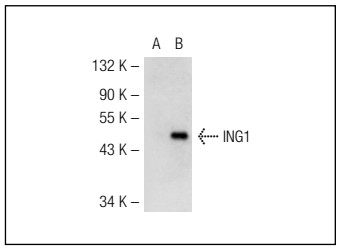
STORAGE

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

DATA



ING1 (C-19): sc-7566. Western blot analysis of ING1 expression in HeLa (**A**), A-673 (**B**), Jurkat (**C**), K-562 (**D**), MOLT-4 (**E**) and CCRF-CEM (**F**) nuclear extracts.



ING1 (C-19): sc-7566. Western blot analysis of ING1 expression in non-transfected: sc-117752 (**A**) and mouse ING1 transfected: sc-122316 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Skowyra, D., et al. 2001. Differential association of products of alternative transcripts of the candidate tumor suppressor ING1 with the mSin3/HDAC1 transcriptional corepressor complex. J. Biol. Chem. 276: 8734-8739.
2. Leung, K.M., et al. 2002. The candidate tumor suppressor ING1 can stabilize p53 by disrupting the regulation of p53 by MDM2. Cancer Res. 62: 4890-4893.
3. Tsang, F.C., et al. 2003. ING1β decreases cell proliferation through p53-dependent and -independent mechanisms. FEBS Lett. 553: 277-285.
4. He, Y.Y., et al. 2004. Expression profiling of human keratinocyte response to ultraviolet A: implications in apoptosis. J. Invest. Dermatol. 122: 533-543.
5. Dong, H, et al. 2006. Expressions of P33ING1 and P53 protein in human lung cancer tissues. Life Science Journal. 3.
6. Jensen, H., et al. 2009. Cell-surface expression of Hsp70 on hematopoietic cancer cells after inhibition of HDAC activity. J. Leukoc. Biol. 86: 923-932.
7. Sayan, B., et al. 2009. Nuclear exclusion of p33ING1β tumor suppressor protein: explored in HCC cells using a new highly specific antibody. Hybridoma 28: 1-6.

RESEARCH USE

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