

p33ING1 (m): 293T Lysate: sc-122316

BACKGROUND

The gene ING1 encodes a protein that was found to be mutated or have reduced expression in several tumor cell lines, suggesting a role for this protein as a tumor suppressor. The gene maps to a chromosome region which is known to be frequently rearranged in gastric cancers and head and neck squamous carcinomas. Overexpression of p33ING1 in various cell lines inhibits cell proliferation and increases programmed cell death in the absence of survival factors. p33ING1 is located in the nucleus where it cooperates with the tumor suppressor p53 to induce growth arrest by directly associating with p53 and modulating its transcriptional activity. p33ING1 is required for p53 mediated negative regulation of cell proliferation and may also be required for other p53 dependent cellular processes, including programmed cell death.

REFERENCES

1. Garkavtsev, I., et al. 1996. Suppression of the novel growth inhibitor p33ING1 promotes neoplastic transformation. *Nat. Genet.* 14: 415-420.
2. Zeremski, M., et al. 1997. Localization of the candidate tumor suppressor gene ING1 to human chromosome 13q34. *Somat. Cell Mol. Genet.* 23: 233-236.
3. Garkavtsev, I., et al. 1997. Cellular localization and chromosome mapping of a novel candidate tumor suppressor gene (ING1). *Cytogenet. Cell Genet.* 76: 176-178.
4. Oren, M. 1998. Tumor suppressors. Teaming up to restrain cancer. *Nature* 391: 233-234.
5. Garkavtsev, I., et al. 1998. The candidate tumor suppressor p33ING1 cooperates with p53 in cell growth control. *Nature* 391: 295-298.
6. Vieyra, D., et al. 2003. Altered subcellular localization and low frequency of mutations of ING1 in human brain tumors. *Clin. Cancer Res.* 9: 5952-5961.
7. Hara, Y., et al. 2003. ING1 and p53 tumor suppressor gene alterations in adenocarcinomas of the esophagogastric junction. *Cancer Lett.* 192: 109-116.

CHROMOSOMAL LOCATION

Genetic locus: Ing1 (mouse) mapping to 8 A1.1.

PRODUCT

p33ING1 (m): 293T Lysate represents a lysate of mouse p33ING1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

p33ING1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive p33ING1 antibodies. Recommended use: 10-20 µl per lane.

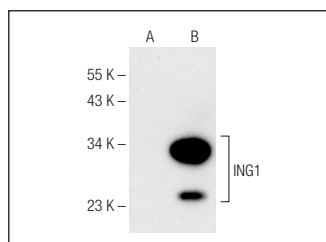
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

p47ING1 (E-2): sc-374295 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse p33ING1 expression in p33ING1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

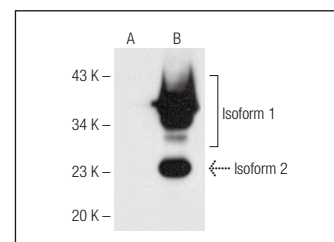
RECOMMENDED SUPPORT REAGENTS

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.

DATA



ING1 (E-2): sc-374295. Western blot analysis of ING1 expression in non-transfected: sc-117752 (A) and mouse ING1 transfected: sc-122316 (B) 293T whole cell lysates.



ING1 (E-10): sc-373817. Western blot analysis of ING1 expression in non-transfected: sc-117752 (A) and mouse ING1 transfected: sc-122316 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.