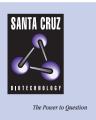
# SANTA CRUZ BIOTECHNOLOGY, INC.

# p47ING1 (G-15): sc-55237



# 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

- Garkavtsev, I., Grigorian, I.A., Ossovskaya, V.S., Chernov, M.V., Chumakov, P.M. and Gudkov, A.V. 1998. The candidate tumour suppressor p33ING1 cooperates with p53 in cell growth control. Nature 391: 295-298.
- Saito, A., Furukawa, T., Fukushige, S., Koyama, S., Hoshi, M., Hayashi, Y. and Horii, A. 2000. p24ING1-ALT1 and p47ING1-ALT2, distinct alternative transcripts of p33ING1. J. Hum. Genet. 45: 177-181.
- Gunduz, M., Ouchida, M., Fukushima, K., Hanafusa, H., Etani, T., Nishioka, S., Nishizaki, K. and Shimizu, K. 2000. Genomic structure of the human ING1 gene and tumor-specific mutations detected in head and neck squamous cell carcinomas. Cancer Res. 60: 3143-3146.
- 4. Zhu, J.J., Li, F.B., Zhu, X.F. and Liao, W.M. 2006. The p33ING1b tumor suppressor cooperates with p53 to induce apoptosis in response to etoposide in human osteosarcoma cells. Life Sci. 78: 1469-1477.
- Okano, T., Gemma, A., Hosoya, Y., Hosomi, Y., Nara, M., Kokubo, Y., Yoshimura, A., Shibuya, M., Nagashima, M., Harris, C.C. and Kudoh, S. 2006. Alterations in novel candidate tumor suppressor genes, ING1 and ING2 in human lung cancer. Oncol. Rep. 15: 545-549.
- Gong, W., Russell, M., Suzuki, K. and Riabowol, K. 2006. Subcellular targeting of p33ING1b by phosphorylation-dependent 14-3-3 binding regulates p21WAF1 expression. Mol. Cell. Biol. 26: 2947-2954.
- González, L., Freije, J.M., Cal, S., López-Otín, C., Serrano, M. and Palmero, I. 2006. A functional link between the tumour suppressors ARF and p33ING1. Oncogene 25: 5173-5179.

#### CHROMOSOMAL LOCATION

Genetic locus: ING1 (human) mapping to 13q34.

#### **STORAGE**

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

# PROTOCOLS

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

### SOURCE

p47ING1 (G-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of p47ING1 of human origin.

## PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-55237 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## **APPLICATIONS**

p47ING1 (G-15) is recommended for detection of p47ING1 precursor of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 ING1 siRNA (h): sc-36152, ING1 shRNA Plasmid (h): sc-36152-SH and ING1 shRNA (h) Lentiviral Particles: sc-36152-V.

Molecular Weight of p47ING1: 47 kDa.

# **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluo-rescence: use donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

# **RESEARCH USE**

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