

ING4 (60.86): sc-135742

BACKGROUND

Inhibitor of growth protein (ING) family of nuclear proteins, also designated ING tumor suppressor proteins, inhibit tumor progression by modulating the transcriptional outputs of signaling pathways, which in turn regulates cell proliferation. Members of this family include ING1, ING2, ING3, ING4 and INGX. ING4 localizes to the nucleus and may inhibit tumor progression by adjusting the transcriptional output of signaling pathways which regulate cell proliferation. When complexed with RELA, ING4 can suppress brain tumor angiogenesis through transcriptional repression of RELA/NFKB3 target genes. ING4 interacts with HIF prolyl hydroxylase 2 (EGLN1), which represses the activity of hypoxia inducible factor (HIF).

REFERENCES

- Shiseki, M., et al. 2003. P29ING4 and p28ING5 bind to p53 and p300 and enhance p53 activity. *Cancer Res.* 63: 2373-2378.
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- Garkavtsev, I., et al. 2004. The candidate tumour suppressor protein ING4 regulates brain tumour growth and angiogenesis. *Nature* 428: 328-332.
- Zhang, X., et al. 2004. ING4 induces G₂/M cell cycle arrest and enhances the chemosensitivity to DNA-damage agents in Hep G2 cells. *FEBS Lett.* 570: 7-12.
- Ozer, A., et al. 2005. Regulation of HIF by prolyl hydroxylases: recruitment of the candidate tumor suppressor protein ING4. *Cell Cycle* 4: 1153-1156.
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- Zhang, X., et al. 2005. Nuclear localization signal of ING4 plays a key role in its binding to p53. *Biochem. Biophys. Res. Commun.* 331: 1032-1038.
- Gunduz, M., et al. 2005. Frequent deletion and downregulation of ING4, a candidate tumor suppressor gene at 12p13, in head and neck squamous cell carcinomas. *Gene* 356: 109-117.

CHROMOSOMAL LOCATION

Genetic locus: ING4 (human) mapping to 12p13.31; Ing4 (mouse) mapping to 6 F2.

SOURCE

ING4 (60.86) is a mouse monoclonal antibody raised against a synthetic peptide corresponding to amino acids 144-154 of ING4 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

ING4 (60.86) is recommended for detection of ING4 of mouse, rat and 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).

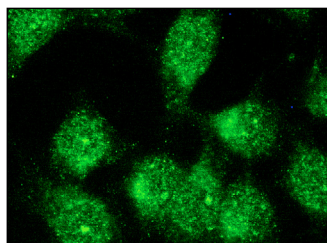
Suitable for use as control antibody for ING4 siRNA (h): sc-60850, ING4 siRNA (m): sc-60851, ING4 shRNA Plasmid (h): sc-60850-SH, ING4 shRNA Plasmid (m): sc-60851-SH, ING4 shRNA (h) Lentiviral Particles: sc-60850-V and ING4 shRNA (m) Lentiviral Particles: sc-60851-V.

Molecular Weight of ING4: 29 kDa.

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) 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.

DATA



ING4 (60.86): sc-135742. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Cai, L., et al. 2018. Enhanced anti-melanoma efficacy of interferon α-2b via overexpression of ING4 by enhanced Fas/FasL-mediated apoptosis. *Oncol. Lett.* 15: 9577-9583.
- Cai, L., et al. 2018. Role of inhibitor of growth 4 in the suppression of human melanoma cells through the Fas/FasL-mediated apoptosis pathway. *Int. J. Mol. Med.* 41: 1055-1061.

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 for detailed protocols and support products.