

ING4 (A-8): sc-376122

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 ING5. 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.
- 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.
- Garkavtsev, I., et al. 2004. The candidate tumour suppressor protein ING4 regulates brain tumour growth and angiogenesis. *Nature* 428: 328-332.
- Kim, S., et al. 2004. A screen for genes that suppress loss of contact inhibition of ING4 as a candidate tumor suppressor gene in human cancer. *Proc. Natl. Acad. Sci. USA* 101: 16251-16256.

CHROMOSOMAL LOCATION

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

SOURCE

ING4 (A-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 157-189 within an internal region 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.

ING4 (A-8) is available conjugated to agarose (sc-376122 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376122 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376122 PE), fluorescein (sc-376122 FITC), Alexa Fluor® 488 (sc-376122 AF488), Alexa Fluor® 546 (sc-376122 AF546), Alexa Fluor® 594 (sc-376122 AF594) or Alexa Fluor® 647 (sc-376122 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376122 AF680) or Alexa Fluor® 790 (sc-376122 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-376122 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

ING4 (A-8) is recommended for detection of ING4 isoforms 1 and 2 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).

ING4 (A-8) is also recommended for detection of ING4 isoforms 1 and 2 in additional species, including equine, canine and bovine.

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.

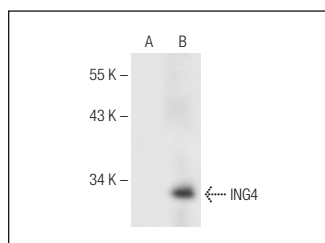
Molecular Weight of ING4: 29 kDa.

Positive Controls: ING4 (h): 293T Lysate: sc-111547.

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.

DATA



ING4 (A-8): sc-376122. Western blot analysis of ING4 expression in non-transfected: sc-117752 (A) and human ING4 transfected: sc-111547 (B) 293T whole cell lysates.

STORAGE

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

RESEARCH USE

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