

ING3 (T-20): sc-54906

BACKGROUND

ING3 is a nuclear tumor-suppressor protein that has been shown to activate UV-induced apoptosis through a FAS mediated pathway. It has also exhibited the ability to regulate p53 mediated transcription and apoptosis, likely by acting as an agent of the NuA4 complex histone acetyltransferase (HAT) complex. Overexpression of ING3 has also shown to increase the cleavage of apoptosis related caspases and BID, however, this is done through a pathway that does not involve increasing mitochondrial proteins. Defects of ING3 lead to a decrease of UV-induced apoptosis and such is believed to greatly affect the prognosis of melanomas and head and neck cancers.

REFERENCES

- Gunduz, M., et al. 2002. Allelic loss and reduced expression of the ING3, a candidate tumor suppressor gene at 7q31, in human head and neck cancers. *Oncogene* 21: 4462-4470.
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- Doyon, Y., et al. 2004. Structural and functional conservation of the NuA4 histone acetyltransferase complex from yeast to humans. *Mol. Cell. Biol.* 24: 1884-1896.
- 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.
- Wang, Y. and Li, G. 2006. ING3 promotes UV-induced apoptosis via FAS/caspase-8 pathway in melanoma cells. *J. Biol. Chem.* 281: 11887-11893.
- Doyon, Y., et al. 2006. ING tumor suppressor proteins are critical regulators of chromatin acetylation required for genome expression and perpetuation. *Mol. Cell* 21: 51-64.
- Wang, Y., et al. 2007. Prognostic significance of nuclear ING3 expression in human cutaneous melanoma. *Clin. Cancer Res.* 13: 4111-4116.

CHROMOSOMAL LOCATION

Genetic locus: ING3 (human) mapping to 7q31.31.

SOURCE

ING3 (T-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ING3 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-54906 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

ING3 (T-20) is recommended for detection of ING3 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).

ING3 (T-20) is also recommended for detection of ING3 in additional species, including equine, canine and porcine.

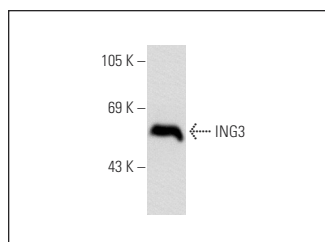
Suitable for use as control antibody for ING3 siRNA (h): sc-62505, ING3 shRNA Plasmid (h): sc-62505-SH and ING3 shRNA (h) Lentiviral Particles: sc-62505-V.

Molecular Weight of ING3: 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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ING3 (T-20): sc-54906. Western blot analysis of ING3 expression in 293T whole cell lysate.

RESEARCH USE

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

PROTOCOLS

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

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Try **ING3 (162.1): sc-101245**, our highly recommended monoclonal alternative to ING3 (T-20).