



**Qty:** 100 µg/400 µL

**Rabbit anti-ING4**

**Catalog No.** 40-7700

**Lot No.**

## Rabbit anti-ING4

### FORM

This polyclonal antibody is supplied as a 400 µL aliquot at a concentration of 0.25 mg/mL in phosphate buffered saline (pH 7.4) containing 0.1% sodium azide. This antibody is epitope-affinity purified from rabbit antiserum.

**PAD:** ZMD.497

### IMMUNOGEN

Synthetic peptide derived from the internal region of the human, mouse and rat ING4 proteins

### SPECIFICITY

This antibody is specific for ING4 (inhibitor of growth protein 4, p29ING4), and may recognize isoform 1 and/or 2. On Western blots, it identifies the target band at ~29 kDa.

### REACTIVITY

Reactivity has been confirmed with mouse thymus and fetal brain homogenates, and human SKNBE, IMR32, Jurkat, and HeLa cell lysates. Based on amino acid sequence homology, reactivity with rat is expected.

Sample	Western Blotting	ELISA
Human	+++	ND
Mouse	+++	ND

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

### USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

**Western Blotting:** 1-3 µg/mL

### STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

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**BACKGROUND**

The *ING4* gene belongs to the ING (INhibitor of Growth) family of tumor suppressors<sup>1</sup>. All five members of the ING protein family identified to date contain a highly conserved plant homeodomain (PHD) finger motif at the C-terminal end, which is found in transcription factors that modulate chromatin structure<sup>2</sup>. ING proteins have been shown to form transcriptional complexes leading to activation of responsive genes that mediate a wide range of cellular functions, including growth arrest, DNA repair, gene transcription, apoptosis, and senescence<sup>1</sup>.

The candidate tumor suppressor ING4 has a role in brain tumor pathogenesis, and is involved in regulating tumor growth and angiogenesis. Expression of ING4 is reduced in gliomas compared to normal brain tissue, and ING4 reduction correlates with progression from lower to higher grades of tumors<sup>3</sup>. ING4 physically interacts with the p65 (RelA) subunit of NF- $\kappa$ B and represses transcription of NF- $\kappa$ B responsive genes<sup>3</sup>. Inactivating mutations in *ING4* transcripts have been described in various human cancer cell lines, and deletion of the *ING4* locus has been detected in 10-20% of human breast cancer cell lines and tumors<sup>4</sup>.

**REFERENCES**

1. Feng X, et al. *Trends Cell Biol* 12:532-538, 2002.
2. Aasland R, et al. *Trends Biochem Sci* 20:56-59, 1995.
3. Garkavtsev I, et al. *Nature* 428:328-332, 2004.
4. Kim S, et al. *PNAS* 101:16251-16256, 2004.

**RELATED PRODUCTS**

<u>Product</u>	<u>Conjugate</u>	<u>Cat. No.</u>
Protein A	Sepharose <sup>®</sup> 4B	10-1041
rec-Protein G	Sepharose <sup>®</sup> 4B	10-1241

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