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Product Information

Monoclonal Anti-ING1

Clone Cab 3

produced in mouse, purified immunoglobulin

Catalog Number **I3659**

Product Description

Monoclonal Anti-ING1 (mouse IgG1 isotype) is derived from the hybridoma Cab 3 produced by the fusion of mouse myeloma cells (SP2/mL6 cells) and splenocytes from BALB/c mice immunized with recombinant ING1.¹ The isotype is determined using a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2.

Monoclonal Anti-ING1 recognizes human ING1.¹ The antibody may be used in ELISA,¹ immunoblotting (~33 kDa),¹ immunocytochemistry,¹ and in supershift assays.²

ING1 gene is transcribed to a family of three alternative spliced mRNAs, p47ING1a, p33ING1b and p24ING1c, that encode for proteins that act as growth inhibitors and are localized in the nucleus. These protein isoforms share the C-terminal region. In human cells, p47ING1a and p33ING1b are the major isoforms expressed.²⁻⁵ Suppression of p33ING1b expression promotes focus formation and growth *in vitro*, and tumor formation *in vivo*, while over expression blocks cell cycle progression by arresting cells at G1 of the cell cycle. Reduced levels of p33ING1b are found in primary breast tumors, lymphoid malignancies, and squamous cell cancers. This isoform also acts as a regulator of apoptosis in different biological systems. Both activities of this protein are mediated by the p53 tumor suppressor via physical and functional interactions. Furthermore, human p33ING1b was found to be functionally and physically linked to HDAC1, thus suggesting that it may be involved in chromatin remodeling.²⁻⁵

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Antibody concentration: ~2 mg/mL

Precautions and Disclaimer

Due to the sodium azide content, a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazardous and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 2-4 µg/mL is recommended using K562 total cell extract.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration.

References

1. Boland, D., et al., *Hybridoma*, **19**, 161-165 (2000).
2. Kataoka, H., et al., *Cancer Res.*, **63**, 5785-5792 (2003).
3. Vieyra, D., et al., *J. Biol. Chem.*, **277**, 29832-29839 (2002).
4. Nagashima, M., et al., *Proc. Natl. Acad. Sci. USA*, **98**, 9671-9676 (2001).
5. Vieyra, D., et al., *Cancer Res.*, **62**, 4445-4452 (2002).

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