Revision 1

Store at -20C

#14625

ING1b (D3D5Z) Rabbit mAb

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H M R Mk	Endogenous	33	Rabbit IgG	#Q9UK53-2	3621

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

ING1b (D3D5Z) Rabbit mAb recognizes endogenous levels of total ING1b protein. This antibody specifically recognizes the ING1b p33 isoform (UniProt# Q9UK53-2).

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human ING1b protein.

Background

Inhibitor of growth 1 (ING1) is a member of an evolutionarily conserved family of tumor suppressor proteins and transcription regulators (1,2). Differential mRNA splicing generates several ING1 isoforms, with the widely expressed ING1b (p33) isoform playing key roles in cell cycle regulation, apoptosis, and senescence (2-5). All ING family proteins contain a plant homeodomain (PHD) that is thought to recognize and bind methylated lysine residues on histone proteins (6,7). The ING1 protein regulates expression of genes through its association with histone acetyltransferase and deacetylase complexes. The PHD of ING1 may facilitate the recruitment of these chromatin-modifying enzymes to targets genes that are regulated by various transcription factors, such as p53 (2, 8-10). Consistent with its role as a tumor suppressor, alterations in ING1 expression levels and cytoplasm localization have been observed in several cancers but mutations in the corresponding *ING1* gene in cancers are uncommon (11-14).

Background References

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5. Abad, M. et al. (2011) *Aging Cell* 10, 158-71.
6. Garkavtsev, I. et al. (1996) *Nat Genet* 14, 415-20.
7. He, G.H. et al. (2005) *Mol Biol Evol* 22, 104-16.
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12. Ohmori, M. et al. (1999) *Am J Hematol* 62, 118-9.
13. Tallen, G. et al. (2004) *Int J Cancer* 109, 476-9.
14. Li, X.H. et al. (2011) *Histol Histopathol* 26, 597-607.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey

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