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#36303**p15 INK4B (E3R6S) Rabbit mAb**

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

<b>Applications:</b> W	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 15	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #P42772	<b>Entrez-Gene Id:</b> 1030
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**Product Usage Information****Application**

Western Blotting

**Dilution**

1:1000

**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**

p15 INK4B (E3R6S) Rabbit mAb recognizes endogenous levels of total p15 INK4B protein. This antibody does not cross-react with p16 INK4A.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg133 of human p15 INK4B protein.

**Background**

Members of the INK4 family of cyclin dependent kinase inhibitors include p16 INK4A, p15 INK4B, p18 INK4C, and p19 INK4D. The INK4 family members inhibit cyclin dependent kinases 4 and 6 (CDK4 and CDK6), causing cell cycle arrest in G1 phase. The INK4A-ARF-INK4B locus on chromosome 9p21, frequently lost in human cancer, encodes the INK4 family members p16 INK5A and p15 INK4B, as well as the unrelated protein, ARF (1).

p15 INK4B protein expression is induced by TGF-β in human keratinocytes (2), a process which requires demethylation at the p15 INK4B locus (3). In hematopoietic cells, p15 INK4B signaling functions in the determination of cell fate (4,5).

Researchers have shown that expression levels of p15 INK4B, altered by epigenetic modification, have an impact on disease progression in multiple myeloma (6). Similarly, studies in pancreatic cancer have shown hypermethylation and epigenetic silencing of p15 INK4B, p16 INK4A, and CDK inhibitors p21cip1 and p27kip1 (7).

**Background References**

1. Kim, W.Y. and Sharpless, N.E. (2006) *Cell* 127, 265-75.
2. Hannon, G.J. and Beach, D. (1994) *Nature* 371, 257-61.
3. Thillainadesan, G. et al. (2012) *Mol Cell* 46, 636-49.
4. Wolff, L. and Bies, J. (2013) *Blood Cells Mol Dis* 50, 227-31.
5. Humeniuk, R. et al. (2013) *Blood Cancer J* 2, e99.
6. Li, J. et al. (2014) *Drug Des Devel Ther* 8, 2129-36.
7. Li, G. et al. (2012) *Mol Med Rep* 5, 1106-10.

**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

**Cross-Reactivity Key**

**H:** Human

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