

p15 INK4B Antibody



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

Applications: W, FC-FP	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 15	Source/Isotype: Rabbit	UniProt ID: #P42772	Entrez-Gene Id: 1030
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Product Usage Information

Application

Western Blotting
Flow Cytometry (Fixed/Permeabilized)

Dilution

1:1000
1:25

Storage

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

Specificity/Sensitivity

p15 INK4B Antibody detects endogenous levels of p15 INK4B.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the amino terminus of human p15 INK4B. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Cyclin-dependent kinases (CDKs) are activated in part by forming complexes with cyclins. For example, CDK4 and CDK6 associate with the D-type cyclins and phosphorylate the retinoblastoma protein. This phosphorylation is a necessary event for cells to enter S-phase (1). The inhibitors of CDK4 (INK4) family include p15 INK4B, p16 INK4A, p18 INK4C and p19 INK4D. p18 has been shown to function as a haploinsufficient tumor suppressor *in vivo* (2). All INK4 proteins are composed of 32 amino acid ankyrin motifs and selectively inhibit CDK4/6 activity. Mutational analyses of p18 implicate the third and the amino-terminal portion of the fourth ankyrin repeat in mediating binding to CDK4/6 (3). The interaction of INK4 family members can be a binary complex with CDK4/6 or ternary complex with cyclin D-bound CDK4/6 and ultimately results in the inhibition of cell cycle progression (4,5). The gene encoding p15 INK4B is often silenced by hypermethylation in acute myeloid leukemia and deleted in acute lymphocytic leukemia (6).

Background References

1. Lukas, J. et al. (1996) *Mol. Cell. Biol.* 16, 6917-6925.
2. Bai, F. et al. (2003) *Mol. Cell. Biol.* 23, 1269-1277.
3. Noh, S.J. et al. (1999) *Cancer Res.* 59, 558-564.
4. Guan, K.L. et al. (1994) *Genes Dev.* 8, 2939-2952.
5. Hirai, H. et al. (1995) *Mol. Cell. Biol.* 15, 2672-2681.
6. Drexler, H.G. (1998) *Leukemia* 12, 845-859.

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 **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

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

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