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Store at -20C  
#4742

## RKIP Antibody

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

<b>Applications:</b> W	<b>Reactivity:</b> H M R Mk	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 21	<b>Source/Isotype:</b> Rabbit	<b>UniProt ID:</b> #P30086	<b>Entrez-Gene Id:</b> 5037
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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 and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

### Specificity/Sensitivity

RKIP Antibody detects endogenous levels of total RKIP protein.

### Species predicted to react based on 100% sequence homology

Bovine

### Source / Purification

Polyclonal antibodies are produced by immunizing animals with synthetic peptides corresponding to human and mouse RKIP. Antibodies are purified by protein A and peptide affinity chromatography.

### Background

Raf kinase inhibitor protein (RKIP) is a member of the phosphatidylethanolamine-binding protein (PEBP) family that associates with Raf-1 and the MEK and MAP kinases (1). RKIP has been shown to form a complex with Raf-1, MEK, and Erk (2). Although MEK and Erk can simultaneously bind RKIP, the association between Raf-1 and RKIP and that of RKIP and MEK are mutually exclusive. Thus, RKIP competitively disrupts the Raf-1-MEK complex and effectively terminates signal transmission from Raf-1 to MAP kinases (2). The inhibitory effect of RKIP on MAP kinase signaling is eliminated by PKC phosphorylation of RKIP at Ser153 (3). PKC phosphorylation on Ser153 also promotes the association of RKIP with GRK2, which prevents GRK2-dependent internalization of GPCR (4). RKIP also interacts with modules of the NF-κB pathway, including NF-κB-inducing kinase (NIK), TAK1, IKKα and IKKβ (5). These interactions antagonize cytokine-induced activation of the NF-κB pathway (5). Restoration of RKIP expression is associated with the inhibition of prostate cancer metastasis, implying that RKIP may be a potential clinical target as a suppressor of tumor metastasis through inhibition of vascular invasion (6).

### Background References

1. Yeung, K. et al. (1999) *Nature* 401, 173-7.
2. Yeung, K. et al. (2000) *Mol Cell Biol* 20, 3079-85.
3. Corbit, K.C. et al. (2003) *J Biol Chem* 278, 13061-8.
4. Lorenz, K. et al. (2003) *Nature* 426, 574-9.
5. Yeung, K.C. et al. (2001) *Mol Cell Biol* 21, 7207-17.
6. Fu, Z. et al. (2003) *J Natl Cancer Inst* 95, 878-89.

### 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 **M:** Mouse **R:** Rat **Mk:** Monkey

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