Revision 1

#5291 Store at -20C

RKIP (V177) Antibody

Cell Signaling TECHNOLOGY®

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H M R Mk	Endogenous	21	Rabbit	#P30086	5037

Product Usage Information

Application	Dilution
Western Blotting	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 (V177) Antibody detects endogenous levels of total RKIP protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val177 of human RKIP. Antibodies were 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

WB: Western Blotting

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

Trademarks and Patents

Limited Uses

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