Revision 1

Phospho-CrkII (Tyr221) Antibody

#3491 Store at -20C

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H Hm	Endogenous	42	Rabbit	#P46108	1398

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

Phospho-CrkII (Tyr221) Antibody detects endogenous levels of CrkII only when phosphorylated at tyrosine 221. The antibody cross-reacts with Tyr207-phosphorylated CrkL but does not cross-react with other tyrosine-phosphorylated proteins.

Species predicted to react based on 100% sequence homology

Mouse, Rat

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr221 of human CrkII. Antibodies are purified by protein A and peptide affinity chromatography.

Background

CrkII, a cellular homologue of v-Crk, belongs to a family of adaptor proteins with an SH2-SH3-SH3 domain structure that transmits signals from tyrosine kinases (1). The primary function of Crk is to recruit cytoplasmic proteins in the vicinity of tyrosine kinases through SH2-phospho-tyrosine interaction. Thus, the output from Crk depends on the SH3-binding proteins, which include the C3G and Sos guanine nucleotide exchange proteins, Abl tyrosine kinase, DOCK180 and some STE20-related kinases. The variety of Crk-binding proteins indicates the pleiotropic function of Crk (2). The two CrkII SH3 domains are separated by a 54 amino acid linker region, which is highly conserved in Xenopus, chicken and mammalian CrkII proteins (3). Tyrosine 221 in this region is phosphorylated by the Abl tyrosine kinase (4), IGF-I receptor (5) and EGF receptor (6). Once Tyr221 is phosphorylated, CrkII undergoes a change in intramolecular folding and SH2-pTyr interaction, which causes rapid dissociation of CrkII from the tyrosine kinase complex (3).

Background References

1. Zvara, A. et al. (2001) *Oncogene* 20, 951-961.
2. Kiyokawa, E. et al. (1997) *Crit. Rev. Oncog.* 8, 329-342.
3. Rosen, M.K. et al. (1995) *Nature* 374, 477-9.
4. Amoui, M. and Miller, W.T. (2000) *Cell. Signal.* 12, 637-643.
5. Koval, A. P. et al. (1998) *Biochem. J.* 330, 923-932.
6. Hashimoto, Y. et al. (1998) *J. Biol. Chem.* 273, 17186-17191.

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 **Hm:** Hamster

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