

#3391 Store at -20°C

Phospho-c-Kit (Tyr719) Antibody



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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	Endogenous	120, 145	Rabbit	#P10721	3815

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	Phospho-c-Kit (Tyr719) Antibody detects endogenous levels of c-Kit only when phosphorylated at tyrosine 719. This antibody may cross-react with other tyrosine-phosphorylated RTKs.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr719 of mouse c-Kit. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	c-Kit is a member of the subfamily of receptor tyrosine kinases that includes PDGF, CSF-1, and FLT3/flk-2 receptors (1,2). It plays a critical role in activation and growth in a number of cell types, including hematopoietic stem cells, mast cells, melanocytes, and germ cells (3). Upon binding with its stem cell factor (SCF) ligand, c-Kit undergoes dimerization/oligomerization and autophosphorylation. Activation of c-Kit results in the recruitment and tyrosine phosphorylation of downstream SH2-containing signaling components, including PLCγ, the p85 subunit of PI3 kinase, SHP2, and CrkL (4). Molecular lesions that impair the kinase activity of c-Kit are associated with a variety of developmental disorders (5), and mutations that constitutively activate c-Kit can lead to pathogenesis of mastocytosis and gastrointestinal stromal tumors (6). Tyr719 is located in the kinase insert region of the catalytic domain. c-Kit phosphorylated at Tyr719 binds to the p85 subunit of PI3 kinase <i>in vitro</i> and <i>in vivo</i> (7).	
Background References	<ol style="list-style-type: none"> 1. Martin, F.H. et al. (1990) <i>Cell</i> 63, 203-11. 2. Yarden, Y. et al. (1987) <i>EMBO J</i> 6, 3341-51. 3. Gommerman, J.L. et al. (1997) <i>J Biol Chem</i> 272, 30519-25. 4. Sattler, M. et al. (1997) <i>J Biol Chem</i> 272, 10248-53. 5. Nocka, K. et al. (1990) <i>EMBO J</i> 9, 1805-13. 6. Hirota, S. et al. (1998) <i>Science</i> 279, 577-80. 7. Blume-Jensen, P. et al. (2000) <i>Nat Genet</i> 24, 157-62. 	

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
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