

Store at +4C #3310	c-Kit (Ab81) Mouse mAb (Alexa Fluor® 488 Conjugate)	
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Applications:	Reactivity:	Sensitivity:	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
IF-IC, FC-FP	H	Endogenous	Mouse IgG1 kappa	#P10721	3815

Product Usage Information	Application	Dilution
	Immunofluorescence (Immunocytochemistry) Flow Cytometry (Fixed/Permeabilized)	1:200 1:50
Storage	Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.	
Specificity/Sensitivity	c-Kit (Ab81) Mouse mAb detects endogenous levels of total c-Kit protein. It does not cross-react with other receptor tyrosine kinase family members.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with recombinant proteins containing the cytoplasmic domain of human c-Kit. The antibody was conjugated to Alexa Fluor® 488 under optimal conditions with an F/P ratio of 2-6.	
Description	This Cell Signaling Technology antibody is conjugated to Alexa Fluor® 488 fluorescent dye and tested in-house for direct flow cytometry and immunofluorescent analysis in human cells.	
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 PLC γ , 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"> Martin, F.H. et al. (1990) <i>Cell</i> 63, 203-11. Yarden, Y. et al. (1987) <i>EMBO J</i> 6, 3341-51. Gommerman, J.L. et al. (1997) <i>J Biol Chem</i> 272, 30519-25. Sattler, M. et al. (1997) <i>J Biol Chem</i> 272, 10248-53. Nocka, K. et al. (1990) <i>EMBO J</i> 9, 1805-13. Hirota, S. et al. (1998) <i>Science</i> 279, 577-80. 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).
Applications Key	IF-IC: Immunofluorescence (Immunocytochemistry) FC-FP: Flow Cytometry (Fixed/Permeabilized)
Cross-Reactivity Key	H: Human
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