

Phospho-FLT3 (Tyr591) (54H1) Mouse mAb

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Applications: W	Reactivity: H M	Sensitivity: Endogenous	MW (kDa): 130 nonglycosylated form;160 glycosylated mature form	Source/Isotype: Mouse IgG2b	UniProt ID: #P36888	Entrez-Gene Id: 2322
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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, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.	
Specificity/Sensitivity	Phospho-FLT3 (Tyr591) (54H1) Mouse mAb detects endogenous levels of FLT3 only when phosphorylated at tyrosine 591. The antibody may cross-react with some tyrosine-phosphorylated proteins.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to the sequences surrounding Tyr591 of human FLT3.	
Background	FMS-related tyrosine kinase 3 (FLT3, also called FLK2) is a member of the Type III receptor tyrosine kinase family, which includes c-Kit, PDGFR, and M-CSF receptors. FLT3 is expressed on early hematopoietic progenitor cells and supports growth and differentiation within the hematopoietic system (1,2). FLT3 is activated after binding with its ligand FL, which results in a cascade of tyrosine autophosphorylation and tyrosine phosphorylation of downstream substrates (3). The p85 subunit of PI3 kinase, SHP2, GRB2, and Shc have all been reported to associate with FLT3 after FL stimulation (4-6). Tyr589/591 is located in the juxtamembrane region of FLT3 and may play an important role in regulation of FLT3 tyrosine kinase activity. Somatic mutations of FLT3 consisting of internal tandem duplications (ITDs) occur in 20% of patients with acute myeloid leukemia (7).	
Background References	<ol style="list-style-type: none"> Shurin, M.R. et al. (1998) <i>Cytokine Growth Factor Rev</i> 9, 37-48. Naoe, T. et al. (2001) <i>Cancer Chemother Pharmacol</i> 48 Suppl 1, S27-30. Namikawa, R. et al. (1996) <i>Stem Cells</i> 14, 388-95. Beslu, N. et al. (1996) <i>J Biol Chem</i> 271, 20075-81. Zhang, S. and Broxmeyer, H.E. (2000) <i>Biochem Biophys Res Commun</i> 277, 195-9. Zhang, S. et al. (1999) <i>J Leukoc Biol</i> 65, 372-80. Mizuki, M. et al. (2000) <i>Blood</i> 96, 3907-14. 	

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 nonfat dry milk, 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
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