

Phospho-FLT3 (Tyr591) Antibody



Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

Applications: W	Reactivity: H M	Sensitivity: Endogenous	MW (kDa): 130 nonglycosylated form;160 glycosylated mature form	Source/Isotype: Rabbit	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 and 50% glycerol. Store at -20°C. Do not aliquot the antibody.	
Specificity/Sensitivity	Phospho-FLT3 (Tyr591) Antibody detects endogenous FLT3 only when phosphorylated at tyrosine 591. The antibody does not cross-react with other FLT family members. It may cross-react with some tyrosine phosphorylated proteins.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Tyr591 of human FLT3. Antibodies are purified by protein A and peptide affinity chromatography.	
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 BSA, 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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