

#4577 Store at -20C

Phospho-FLT3 (Tyr842) (10A8) Rabbit mAb


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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M	Endogenous	160	Rabbit IgG	#P36888	2322

Product Usage Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

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 (Tyr842) (10A8) Rabbit mAb detects endogenous levels of FLT3 only when phosphorylated at Tyr842. This antibody may cross-react with other tyrosine-phosphorylated family members.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to the sequence surrounding Tyr842 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).

Tyr842 is located in the activation loop of FLT3. Mutation of Tyr842 was identified in human AML patients (8).

Background References

- Shurin, M.R. et al. (1998) *Cytokine Growth Factor Rev* 9, 37-48.
- Naoe, T. et al. (2001) *Cancer Chemother Pharmacol* 48 Suppl 1, S27-30.
- Namikawa, R. et al. (1996) *Stem Cells* 14, 388-95.
- Beslu, N. et al. (1996) *J Biol Chem* 271, 20075-81.
- Zhang, S. and Broxmeyer, H.E. (2000) *Biochem Biophys Res Commun* 277, 195-9.
- Zhang, S. et al. (1999) *J Leukoc Biol* 65, 372-80.
- Mizuki, M. et al. (2000) *Blood* 96, 3907-14.
- Kindler, T. et al. (2005) *Blood* 105, 335-340.

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 **IP:** Immunoprecipitation

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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