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Mouse FLT3L Recombinant Protein

10 µg

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For Research Use Only. Not for Use in Diagnostic Procedures.**MW (kDa):**
18.6**UniProt ID:**
#P49772**Entrez-Gene Id:**
14256

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).

Endotoxin

Endotoxin levels are less than or equal to 1 EU / 1 µg mFLT3L.

Purity

A greater than or equal to 95% purity was determined by SDS-PAGE.

Source / Purification

Recombinant mouse FLT3L was expressed in *E. coli* and is supplied in a lyophilized form.

Bioactivity

The bioactivity of recombinant mFLT3L was determined in an OCI-AML5 cell proliferation assay. The ED₅₀ of each lot is less than or equal to 10 ng/mL.

Background References

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

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