

DESCRIPTION

Species Reactivity	Human
Specificity	Detect human Flt-3/Flk-2 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant mouse Flt-3, recombinant human (rh) SCF R, rhPDGF R α , or rhPDGF R β is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 66903
Purification	Protein A or G purified from ascites
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Flt-3/Flk-2 Asn27-Asn541 Accession # AAA18947
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Flow Cytometry	0.25-1 µg/10 ⁶ cells	Human peripheral blood monocytes

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

The Flt-3 (*fms*-like tyrosine kinase) receptor, also named Flk-2 (fetal liver kinase) and Stk-1 (stem cell tyrosine kinase) is a member of the class III subfamily of receptor tyrosine kinases that also includes KIT, the receptor for SCF and FMS, the receptor for M-CSF. The extracellular region of these receptors contains five immunoglobulin-like domains and the intracellular region contains a split kinase domain. Human Flt-3 cDNA encodes a 993 amino acid (aa) residue type I membrane protein with a 26 aa residue signal peptide, a 515 aa extracellular domain with 10 potential N-linked glycosylation sites, a 21 aa residue transmembrane domain and a 431 aa residue cytoplasmic domain. Mouse Flt-3 has also been cloned and shown to share 85% amino acid sequence identity with human Flt-3. Flt-3 expression has been detected in various tissues, including placenta, gonads, and tissues of nervous and hematopoietic origin. Among hematopoietic cells, the expression of Flt-3 was found to be restricted to the highly enriched stem/progenitor cell populations. The ligand for Flt-3 (FL) has been identified to be a transmembrane protein with structural homology to M-CSF and SCF. Recombinant soluble Flt-3/Fc chimeric protein has been shown to bind FL with high affinity and is a potent FL antagonist.

References:

1. Rosnet, O. *et al.* (1996) *Acta. Haemato.* **95**:218.
2. Drexler, H.G. (1996) *Leukemia* **10**:588.

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