Recombinant Human Flt-3/Flk-2 Fc Chimera

Catalog Number: 368-ST

DESCRIPTION

Source Mouse myeloma cell line, NS0-derived

Human Flt-3 (Asn27-Asn541) Accession # AAA18947	DIEGRMD	Human IgG_1 (Pro100-Lys330)	6-His tag

N-terminus C-terminus

N-terminal Sequence Analysis	Asn27
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	85.5 kDa (monomer)

SPECIFICATIONS

SDS-PAGE	120 kDa, reducing conditions
Activity	Measured by its ability to inhibit Flt-3 Ligand-induced proliferation of BaF3 mouse pro-B cells transfected with Flt-3. The ED_{50} for this effect is 0.01-0.03 µg/mL in the presence of rhFlt-3 Ligand at 2 ng/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>97%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 50 µg/mL in sterile PBS containing at least 0.1% human or bovine serum albumin.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, -20 to -70 °C under sterile conditions after reconstitution.

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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