

KITLG

Recombinant Human SCF / c-Kit Ligand (aa 1-189, His Tag)

Catalog No.	CRH485A-His CRH485B-His CRH485C-His CRH485D-His	Quantity:	20 µg 100 µg 1.0 mg 500 µg
Alternate Names:	Kit ligand, Mast cell growth factor, MGF, Stem cell factor, SCF, c-Kit ligand, Soluble KIT ligand, sKITLG		
Description:	<p>SCF is the ligand of the tyrosine-kinase receptor encoded by the KIT locus. This ligand is a pleiotropic factor that acts in utero in germ cell and neural cell development, and hematopoiesis, all believed to reflect a role in cell migration. In adults, it functions pleiotropically, while mostly noted for its continued requirement in hematopoiesis. SCF/C-kit ligand stimulates the proliferation of mast cells. This protein is able to augment the proliferation of both myeloid and lymphoid hematopoietic progenitors in bone marrow culture. It may act synergistically with other cytokines, probably interleukins. <i>In vitro</i>, SCF with other growth factors, such as granulocyte colony-stimulating factor (G-CSF), granulocyte macrophage- colony- stimulating factor, and interleukin-3 to stimulate the proliferation and differentiation of cells of the lymphoid, myeloid, erythroid, and megakaryocytic lineages. <i>In vivo</i>, SCF/C-kit also synergizes with other growth factors and has been shown to enhance the mobilization of peripheral blood progenitor cells in combination with G-CSF. In phase I/II clinical studies administration of the combination of SCF and G-CSF resulted in a two- to threefold increase in cells that express the CD34 antigen compared with G-CSF alone.</p>		
UniProt ID:	P21583-1		
Protein Construction:	A DNA sequence encoding the amino acid (Met 1-Ala 189) of human SCF extracellular domain was expressed, with a polyhistidine tag at the C-terminus.		
Source:	Baculovirus-Insect Cells		
Formulation:	Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 8.0 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.		
Molecular Weight:	The secreted recombinant human SCF (aa 1-189) consists of 175 amino acids and predicts a molecular mass of 19.9 kDa. The apparent molecular mass of rh SCF is approximately 22 kDa in SDS-PAGE under reducing conditions.		
Purity:	> 92 % as determined by SDS-PAGE		
Endotoxin Level:	< 1.0 EU per µg protein as determined by the LAL method.		
Biological Activity:	Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED50 for this effect is 2-8 ng/mL.		
Predicted N-terminal:	Glu 26		



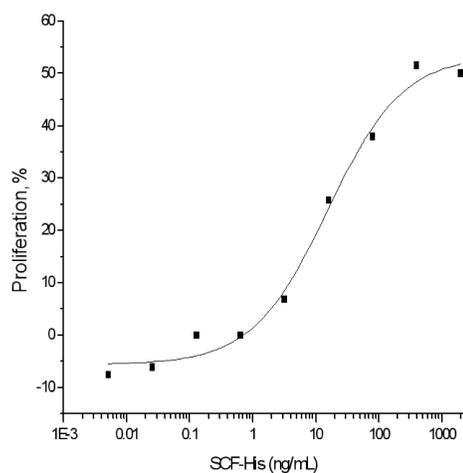
Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of 0.1 mg/mL and gently pipette the solution up and down the sides of the vial.

DO NOT VORTEX. Allow several minutes for complete reconstitution.

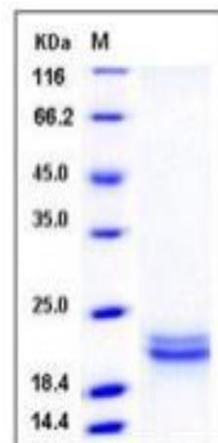
Storage & Stability: Stable for up to 1 year from date of receipt at -20°C to -80°C
After reconstitution, store working aliquots at -20°C to -80°C.

Avoid repeated freeze-thaw cycles.

Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED50 for this effect is 2-8 ng/mL.



SDS-PAGE



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