

Kitlg

Recombinant Rat Stem Cell Factor

Catalog No.	CRS202A CRS202B CRS202C	Quantity:	2 µg 10 µg 1.0 mg
Alternate Names:	c-Kit Ligand, KL, Steel Factor, MGF		
Description:	Stem Cell Factor (SCF) which binds to the c-Kit receptor is produced by fibroblasts and endothelial cells. The soluble and transmembrane forms of the protein are formed by alternative splicing of the same RNA transcript and the presence of both soluble and transmembrane SCF is required for normal hematopoietic function. SCF plays an important role in hematopoiesis, spermatogenesis, and melanogenesis. In addition, it also promotes mast cell adhesion, migration, proliferation, and survival 3. Rat SCF shares 75% - 90% a.a. sequence identity with canine, feline, mouse, and human SCF. Furthermore, rat SCF is active on mouse and human cells, but human SCF is only weakly active on mouse cells.		
Gene ID:	60427		
Protein Accession No:	P21581		
Source:	<i>E. coli</i>		
Molecular Weight:	Approximately 18.5 kDa, a single non-glycosylated polypeptide chain containing 165 amino acids.		
Formulation:	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.		
Purity:	>95% by SDS-PAGE and HPLC analyses.		
Endotoxin Level:	Less than 1EU/µg as determined by LAL method.		
Biological Activity:	Fully biologically active when compared to standard. The ED ₅₀ determined by a cell proliferation assay using human TF-1 cells is less than 20 ng/ml.		
Specific Activity:	> 5 x 10 ⁵ IU/mg		
Amino Acid Sequence:	MQEICRNPVT DNVKDITKLV ANLPNDYMIT LNYVAGMDVL PSHCWLRDMV THLSVSLTTL LDKFSNISEG LSNYSIIDKL GKIVDDLVA MEENAPKNVK ESLKKPETRN FTPEEFSIF NRSIDAFKDF MVASDTSDCV LSSTLGPEKD SRVSVTKPFM LPPVA		
Reconstitution:	Centrifuge vial prior to opening. Add sterile distilled water or aqueous buffer to a concentration of 0.1-1.0 mg/ml. Further dilutions should be made in appropriate buffered solutions.		
Storage & Stability:	This lyophilized preparation is stable at 2-4°C, but should be kept desiccated at -20°C for long term storage. Upon reconstitution, the preparation is stable for up to one week at 2 -4°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -80°C. Avoid repeated freeze/thaw cycles.		

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