

SCF active protein

Human SCF

CATALOG # AAA79137	HOST Insect Cells	REACTIVITY Human
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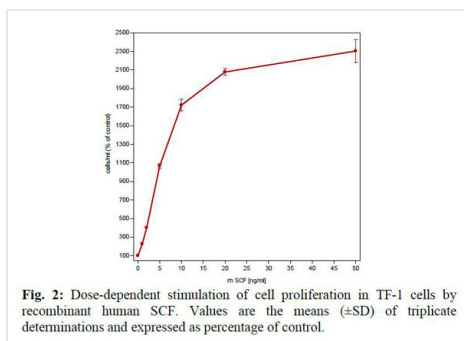
PRODUCT SYNONYMS

SCF; Human SCF; Recombinant Human Stem Cell Factor (SCF); Mast cell growth factor; Stem cell factor; c-Kit ligand; SCF active protein

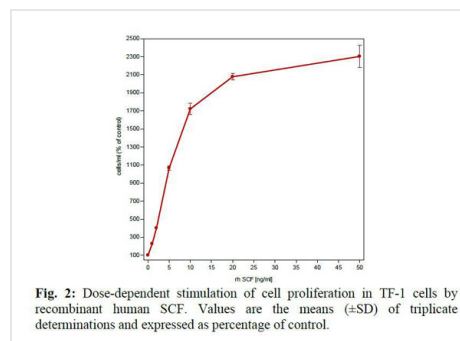
PRODUCT SPECIFICATIONS

Host	Insect Cells
Reactivity	Human
Purity/Purification	> 98% by SDS-PAGE & silver stain
Form/Format	Lyophilized
Sequence	N-Terminal Sequence:U NDERWORK!
Sequence Length	165
Buffer	PBS
Preparation and Storage	The lyophilized human SCF, though stable at room temperature, is best stored desiccated below 0 degree C. Reconstituted human SCF should be stored in working aliquots at -20 degree C. Avoid repeated freeze-thaw cycles

IMAGES



Application Data



Application Data

ADDITIONAL INFORMATION

Related Product Information for SCF active protein	Stem Cell Factor (SCF), a 18,4 kDa protein consisting of 164 amino acid residues (Asp26-Ala189) and fused to a C-terminal His-tag (6x His), is a hematopoietic growth factor that exerts its activity at the early stages of hematopoiesis. SCF stimulates the proliferation of myeloid, erythroid, and lymphoid progenitors in bone marrow cultures and has been shown to act synergistically with colony stimulating factors. This pleiotropic cytokine, alternately known as mast cell growth factor (MGF) and steel-factor (SLF), plays essential roles in gametogenesis, melanogenesis and early stages of hematopoiesis. In vitro and in vivo, SCF can stimulate the proliferation of mature, as well as the proliferation and maturation of immature, mast cells. On purified primitive human and mouse hematopoietic precursors, SCF acts in a synergistic manner with various growth factors, such as IL-1, IL-3, IL-6, IL-7, and Epo, to induce myeloid, erythroid and lymphoid lineage colony formation. The finding that SCF is also expressed in the nervous system suggests a possible role for SCF in the development of the nervous system. The cDNA sequences for human, mouse and rat SCF encode transmembrane proteins which are composed of a signal peptide, a 189 amino acid extracellular domain, a hydrophobic transmembrane domain and an intracellular domain. Native SCF can exist either as the membrane bound form or as a soluble form consisting of the first 164 or 165 amino acids of the extracellular domain. The soluble form is believed to be a proteolytic cleavage product of the transmembrane protein. Both the soluble and the transmembrane form of SCF have growth factor activities. Native soluble SCF is a heavily N- and O-glycosylated protein which exists as a non-covalently associated dimer in solution. All four cysteine residues of SCF monomers are involved in intramolecular disulfide bonds. Murine or rat soluble SCF is highly homologous to human soluble SCF (approximately 80%). Whereas both rat and mouse SCF are active on human cells, the human protein is much less active on mouse or rat cells.
Product Categories/Family for SCF active protein	Cytokines & Growth Factors
References	1. Ashman LK Int J Biochem Cell Biol 31 (1999); 2. Sette et al, Int J Dev Biol 44 (2000); 3. Yoshida et al, J Invest Dermatol Symp Proc 6 (2001); 4. Erlandsson et al, Exp Cell Res 301 (2004); 5. Kapur et al, Blood 100 (2002); 6. Wang et al, Arterioscler Thromb Vasc Biol 27 (2007); 7. Bashamboo et al, J Cell Sci 119 (2006); 8. Reber et al, Eur J Pharmacol 533 (2006); 9. Huang et al, Cell 63 (1990); 10. Arakawa et al, J Biol Chem 266 (1991); 11. Majumdar et al, J Biol Chem 269 (1994); 12. Brannan et al, Proc Natl Acad Sci (1991); 13. Flanagan et al, Cell 64 (1991); 14. Martin et al, Cell 63 (1990); 15. Lemmon et al, J Biol Chem 272 (1997); 16. Kanellakis et al, Cardiovasc Res 70 (2006)

NCBI AND UNIPROT INFORMATION

NCBI GI #	4505175
NCBI GeneID	4254
NCBI Accession #	NP_000890.1
NCBI GenBank Nucleotide #	NM_000899.4
UniProt Accession #	P21586; Q16487; Q68DZ2; Q7M4N8; Q9UQK7; A0AV09; A8K2Q4; B7ZLM4; P21583
Molecular Weight	20.0-23.0 kDa
NCBI Official Full Name	kit ligand isoform b
NCBI Official Synonym Full Names	KIT ligand
NCBI Official Symbol	KITLG
NCBI Official Synonym Symbols	SF; MGF; SCF; FPH2; KL-1; Kitl; SHEP7
NCBI Protein Information	kit ligand; c-Kit ligand; steel factor; stem cell factor; mast cell growth factor; familial progressive hyperpigmentation 2
UniProt Protein Name	Kit ligand
UniProt Gene Name	KITLG
UniProt Synonym Gene Names	MGF; SCF; MGF; SCF; sKITLG
UniProt Entry Name	SCF_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/insect-human-active-protein/scf/79137>