



YB90120Hu01
Stem Cell Factor (SCF)
Organism: Homo sapiens (Human)
Instruction manual

FOR IN VITRO USE AND RESEARCH USE ONLY
NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES

1th Edition (Revised in February, 2012)

[DESCRIPTION]

Protein Names: Stem Cell Factor

Gene Names: SCF

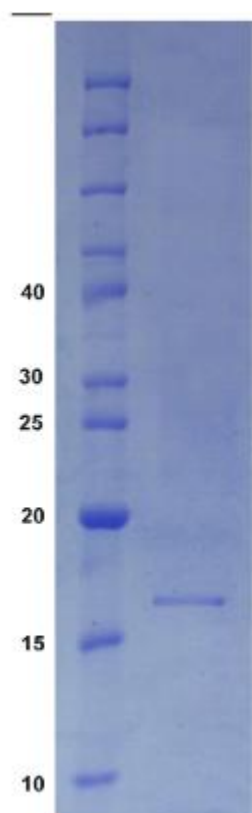
Size: 100 μ g

Source: Recombinant

Expression Host: *E.coli*

Function: Ligand for the receptor-type protein-tyrosine kinase KIT. Plays an essential role in the regulation of cell survival and proliferation, hematopoiesis, stem cell maintenance, gametogenesis, mast cell development, migration and function, and in melanogenesis. KITLG/SCF binding can activate several signaling pathways. Promotes phosphorylation of PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase, and subsequent activation of the kinase AKT1. KITLG/SCF and KIT also transmit signals via GRB2 and activation of RAS, RAF1 and the MAP kinases MAPK1/ERK2 and/or MAPK3/ERK1. KITLG/SCF and KIT promote activation of STAT family members STAT1, STAT3 and STAT5. KITLG/SCF and KIT promote activation of PLCG1, leading to the production of the cellular signaling molecules diacylglycerol and inositol 1,4,5-trisphosphate. KITLG/SCF acts synergistically with other cytokines, probably interleukins.

Subcellular Location: Cell membrane; Single-pass type I membrane protein; Secreted



15% Tris-glycine SDS-PAGE



[PROPERTIES]

Residues: Glu26-Ala189 (Accession # P21583), with a N-terminal Met.

Grade & Purity: >97%, 18.6 kDa as determined by SDS-PAGE reducing conditions.

Form & Buffer: Supplied as lyophilized form in PBS, pH 7.4.

Endotoxin Level: <1.0 EU per 1 μ g (determined by the LAL method).

Applications: SDS-PAGE; WB; ELISA; IP.

(May be suitable for use in other assays to be determined by the end user.)

Predicted Molecular Mass: 18.6 kDa

[PREPARATION]

Reconstitute in PBS.

[STORAGE AND STABILITY]

Storage: Store at 4 $^{\circ}$ C for short term storage (1-2 weeks). Aliquot and store at -20 $^{\circ}$ C or -80 $^{\circ}$ C for long term storage. Avoid repeated freeze/thaw cycles.

Valid period: 12 months stored at -80 $^{\circ}$ C.

[REFERENCES]

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