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Recombinant human SCF protein (Active, CHO)

Catalog Number: bs-48077P

Species: Human

AA Seq: 26-190/273

Predicted MW: 18.5

Tags: Tag free

Activity: Yes

Endotoxin: ≤10 EU/mg

Purity: \geq 95% as determined by SDS-PAGE.

Purification: AC

Form: Lyophilized

Storage: Lyophilized from a 0.22µm-filtered solution containing PBS, 5% Mannitol and 0.01% Tween

80, pH7.4

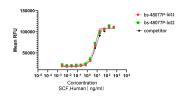
Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 36 months at -20°C to

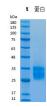
-80°C in lyophilized state. 6 months at -20°C to -80°C under sterile conditions after reconstitution. 7-10 days at 2°C to 8°C under sterile conditions after reconstitution.

Background: Stem Cell Factor (SCF), also known as c-Kit ligand (KL), steel factor (SLF) and mast cell

growth factor (MGF), is a 30 kDa glycoprotein with broad activities on various tissues, including hematopoietic cells, pigment cells, and primordial germ cells. SCF is secreted by endothelial cells, fibroblasts, and bone marrow stromal cells as a membrane-bound form which may be cleaved to release the soluble form. Both forms are active in promoting colony formation from murine bone marrow cells, but membrane-bound SCF is more effective in promoting hematopoieses in vivo, suggesting a role in cellular interactions between hematopoietic and stromal cells. The soluble form is thought to exist in solution as a noncovalently linked dimer. SCF is structurally related to M-CSF (CSF-1) and Flt-3/Flk-2 Ligand (FL) with all three sharing a similar size, existence of transmembrane and soluble forms, four conserved cysteines, and alternative splicing exon locations, but they share little sequence homology. SCF alone is a modest colony stimulating factor. However, in the presence of other cytokines such as EPO, TPO, GM-CSF, G-CSF, M-CSF, IL-3, and IL-7, SCF is a potent costimulant that works synergistically to increase the size of myeloid, erythroid or lymphoid lineage colonies without influencing the lineage differentiation of the progenitors.

VALIDATION IMAGES





Measured in a cell proliferation assay using TF-1 cells. The ED50 for this effect is 5-8 ng/mL.

The purity of the protein is greater than 95% as determined by reducing SDS-PAGE.