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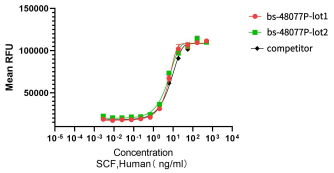
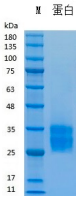
Recombinant human SCF protein (Active, CHO)

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:	⩾ 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.