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Human Stem Cell Factor (SCF)

100 µl

For Research Use Only. Not for Use in Diagnostic Procedures.

MW (kDa):	UniProt ID:	Entrez-Gene Id:
18.5	#P21583	4254

Background

Stem cell factor (SCF) is a growth factor that is essential for hematopoiesis, melanogenesis and fertility. SCF is also known as mast cell growth factor (MCGF), steel factor (SLF), or kit ligand (KL) (1-3). SCF mediates its biological effects by binding to and activating c-Kit (4). SCF induces dimerization of c-Kit followed by trans-autophosphorylation of the cytoplasmic protein tyrosine kinase domain, leading to subsequent recruitment of signaling proteins, tyrosine phosphorylation of substrates, and activation of multiple signaling pathways (5,6). SCF/c-Kit may take part in the growth control of human malignancies (7).

Purity

>97%

Source / Purification

Human Recombinant Protein

Bioactivity

The EC50 for stimulation of TF-1 cell proliferation is 4-8 ng/ml.

Background References

1. Smith, M.A. et al. (2001) *Blood Rev.* 15, 191-197.
2. Linnekin, D. (1999) *Int. J. Biochem. Cell Biol.* 31, 1053-1074.
3. Huang, E. et al. (1990) *Cell* 63, 225-233.
4. Jiang, X. et al. (2000) *EMBO J.* 19, 3192-3203.
5. Ashman, L.K. (1999) *Int. J. Biochem. Cell Biol.* 31, 1037-1051.
6. Ueda, S. et al. (2002) *Blood* 99, 3342-3349.
7. Attoub, S. et al. (2002) *Cancer Res.* 62, 4879-4883.

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