

## Recombinant Rat Stem Cell Factor

<b>Catalog No.:</b>	PA1126X
<b>Quantity:</b>	10 µg
<b>Species:</b>	Rat
<b>Source:</b>	E. coli
<b>Format:</b>	<p><b>Purity:</b> &gt;98% is greater than 98.0% as determined by:</p> <p>(a) Analysis by RP-HPLC.</p> <p>(b) Anion-exchange FPLC.</p> <p>(c) Analysis by reducing and non-reducing SDS-PAGE silver stained gel.</p> <p>Endotoxin level is less than 0.1 ng/µg (IEU/µg) of SCF. Dimers/aggregates: less than 1%</p>
<b>Description:</b>	<p>Recombinant Rat Stem Cell Factor (SCF) produced in E.Coli is a single, non-glycosylated polypeptide chain containing 165 amino acids and having a molecular mass of 18409 Dalton. The sequence of the first five N-terminal amino acids was determined and was found to be Met-Gln-Glu-Ile-Cys. Precursor- Protein structure and amino acid sequence: Format: This antigen is supplied as sterile filtered, white freeze-dried powder without additives, lyophilized from a concentrated (1 mg/ml) solution in water containing 20mM Tris pH-7.5 . It is recommended to reconstitute the Recombinant Rat Stem Cell Factor in sterile 18M-cm H2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions. Protein quantitation was carried out by two independent methods: 1. UV spectroscopy at 280 nm 2. Analysis by RP-HPLC, using a calibrated solution of SCFas a Reference Standard.</p> <p><b>Molecular weight:</b> 18 kDa</p>
<b>Storage:</b>	Lyophilized Rat SCF, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution recombinant SCF should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please avoid repeated freezing and thawing.
<b>General Readings:</b>	<ol style="list-style-type: none"> <li>1. Neuroprotection by stem cell factor in rat cortical neurons involves AKT and NFkappaB. J Neurochem 2005 Oct;95(1):9-19</li> <li>2. Quantification of stem cell factor mRNA levels in the rat testis: usefulness of clusterin mRNA as a marker of the amount of mRNA of Sertoli cell origin in post pubertal rats. J Endocrinol 2005 Jul;186(1):131-43</li> <li>3. Activation of Akt (PKB) and suppression of FKHL1 in mouse and rat oocytes by stem cell factor during follicular activation and development. Dev Biol 2005 May 15;281(2):160-70</li> <li>4. Ghrelin inhibits the proliferative activity of immature Leydig cells in vivo and regulates stem cell factor messenger ribonucleic acid expression in rat testis. Endocrinology 2004 Nov;145(11):4825-34</li> <li>5. Survivin expression in rat testis is upregulated by stem-cell factor. Mol Cell Endocrinol 2004 Apr 15;218(1-2):165-74</li> <li>6. Stem cell factor and insulin-like growth factor-I stimulate luteinizing hormone-</li> </ol>

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