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Recombinant Rat Stem Cell Factor

Catalog No.: PA1126

Quantity: 2 µg

Species: Rat

Source: E. coli

Format: **Purity:** ›98% is greater than 98.0% as determined by:
(a) Analysis by RP-HPLC.
(b) Anion-exchange FPLC.
(c) Analysis by reducing and non-reducing SDS-PAGE silver stained gel.
Endotoxin level is less than 0.1 ng/µg (IEU/µg) of SCF. Dimers/aggregates: less than 1%

Description: 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.
Molecular weight: 18 kDa

Storage: 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.

General Readings:
1. Neuroprotection by stem cell factor in rat cortical neurons involves AKT and NFkappaB. J Neurochem 2005 Oct;95(1):9-19
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
3. Activation of Akt (PKB) and suppression of FKHRL1 in mouse and rat oocytes by stem cell factor during follicular activation and development. Dev Biol 2005 May 15;281(2):160-70
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
5. Survivin expression in rat testis is upregulated by stem-cell factor.
Mol Cell Endocrinol 2004 Apr 15;218(1-2):165-74
6. Stem cell factor and insulin-like growth factor-I stimulate luteinizing hormone-

independent differentiation of rat ovarian