

Recombinant Canine Stem Cell Factor (rCaSCF)

PrimeGene Technical Data Sheet

Catalog Number: 132-01

Source: Escherichia coli.

Molecular Weight:

Approximately 18.4 kDa, a single non-glycosylated polypeptide chain containing 165 amino acids.

Quantity:

 $2\mu g/10\mu g/1000\mu g$

AA Sequence: KGICGKRVTD DVKDVTKLVA NLPKDYKIAL KYVPGMDVLP SHCWISVMVE

OLSVSLTDLL DKFSNISEGL SNYSIIDKLV KIVDDLVECT EGYSFENVKK APKSPELRLF

TPEEFFRIFN RSIDAFKDLE TVASKSSECV VSSTLSPDKD SRVSVTKPFM LPPVA

Purity:

> 96 % by SDS-PAGE and HPLC analyses.

Biological Activity:

Fully biologically active when compared to standard. The ED₅₀ as determined by a cell proliferation

assay using human TF-1 cells is less than 2.0 ng/ml, corresponding to a specific activity of $> 5.0 \times$

 10^5 IU/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized from a 0.2 μ m filtered concentrated solution in 2 \times PBS, pH 7.4.

Endotoxin:

Less than 1 EU/µg of rCaSCF as determined by LAL method.

Reconstitution:

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and

stored at \leq -20 °C. Further dilutions should be made in appropriate buffered solutions.

Shipping:

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature

recommended below.

Stability & Storage:

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

12 months from date of receipt, -20 to -70 °C as supplied.

1 month, 2 to 8 °C under sterile conditions after reconstitution.

3 months, -20 to -70 °C under sterile conditions after reconstitution.

Usage:

This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further

evaluation purposes. NOT FOR HUMAN USE.

Canine Stem Cell Factor

Stem Cell Factor (SCF) which binds to the c-Kit receptor is produced by fibroblasts and endothelial cells. The soluble and transmembrane forms of the protein are formed by alternative splicing of the same RNA transcript and the presence of both soluble and transmembrane SCF is required for normal hematopoietic function. SCF plays an important role in hematopoiesis, spermatogenesis and melanogenesis and it promotes mast cell adhesion, migration, proliferation, and survival. Soluble canine SCF shares 88 %, 93 %, 86 %, 83 %, 76 %, 76 %, 86 % and 88 % a.a. sequence identity with porcine, feline, bovine, human, mouse, rat, goat and equine SCF, respectively. Cells known to express SCF include endothelial cells, fibroblasts and keratinocytes.

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