

Recombinant Canine KITLG protein

Cat. No. KITLG-572D **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Canine KITLG protein was expressed in Escherichia coli.
Species	Canine
Source	E.coli
ProteinLength	165
Description	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 .
Form	Lyophilized from a 0.2µm filtered concentrated solution in 2 × PBS, pH 7.4.
Bio-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.

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Molecular Mass	Approximately 18.4 kDa, a single non-glycosylated polypeptide chain containing 165 amino acids.
AA Sequence	KGICGKRVTTDDVKDVTKLVANLPKDYKIALKYVPGMDVLPSHCWISVMVEQLSVSLT DLLDKFSNISEGLSNYSIIDKLVKIVDDLVECTEGYSFENVKKAPKSPELRLFTPEEFF RIFNRSIDAFKDLETVASKSSECVVSSTLSPDKDSRVSVTKPFMLPPVA
Endotoxin	Less than 1 EU/μg of rCaSCF as determined by LAL method.
Purity	>96% by SDS-PAGE and HPLC analysis.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
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 ≤-20 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name	KITLG
Official Symbol	KITLG
Synonyms	Hematopoietic Growth Factor KL, MGF
Gene ID	403507

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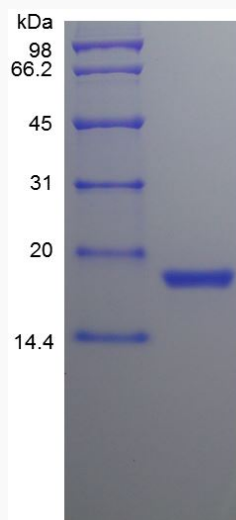
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mRNA Refseq NM_001012735.2

Protein Refseq NP_001012753.1

UniProt ID Q06220

SDS-PAGE of KITLG-
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