

Active Recombinant Canine FLT3LG Protein, His-tagged

Cat. No. FLT3LG-11087C **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Canine Flt-3 Ligand Protein, His Tag is expressed from human 293 cells (HEK293). It contains AA Thr 27 - Arg 186 (Accession # A0A8C0M0A9). This protein carries a polyhistidine tag at the C-terminus. Predicted N-terminus: Thr 27. The protein is designed as a dimer.
Species	Canine
Source	HEK293
ProteinLength	27-186 aa
Description	FMS-like tyrosine kinase 3 ligand (Flt-3 Ligand) is also known as FL, Flt3L and FLT3LG, is an α-helical cytokine that promotes the differentiation of multiple hematopoietic cell lineages. FLT3LG is expressed as a noncovalentlylinked dimer by T cells and bone marrow and thymic fibroblasts. Each 36 kDa chain carries approximately 12 kDa of N- and O- linked carbohydrates. FLT3LG is structurally homologous to stem cell factor (SCF) and colony stimulating factor 1 (CSF-1). FLT3LG acts as a growth factor that increases the number of immune cells by activating the hematopoietic progenitors. It also induces the mobilization of the hematopoietic progenitors and stem cells in vivo which may help the system to kill cancer cells. FLT3LG induces the expansion of monocytes and immature dendritic cells as well as early B cell lineage differentiation. FLT3LG cooperates with IL2, IL6, IL7, and IL15 to induce NK cell development and with IL3, IL7 and IL11 to induce terminal B cell maturation. Animal studies also show FLT3LG to reduce the severity of

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experimentally induced allergic inflammation. FLT3LG is crucial for steady-state pDC and cDC development. A lack of FLT3L results in low levels of DCs.

Form	Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.
Bio-activity	Immobilized Human Flt-3, Fc Tag at 2 µg/mL (100 µL/well) can bind Canine Flt-3 Ligand Protein, His Tag with a linear range of 0.1-0.3 ng/mL.
Molecular Mass	The protein has a calculated MW of 19.6 kDa. The protein migrates as 29-31 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.
Endotoxin	Less than 1.0 EU/µg by the LAL method/rFC method.
Purity	>90% as determined by SDS-PAGE.
Storage	This product is stable after storage at: -20 to -70 centigrade for 12 months in lyophilized state; -70 centigrade for 3 months under sterile conditions after reconstitution. For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower. Please avoid repeated freeze-thaw cycles.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 µg/µL. Centrifuge the vial at 4 centigrade before opening to recover the entire contents.

GENE INFORMATION

Gene Name	FLT3LG fms-related tyrosine kinase 3 ligand [<i>Canis lupus familiaris</i>]
Official Symbol	FLT3LG

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Synonyms	FLT3LG; fms-related tyrosine kinase 3 ligand; Flt3 ligand;
Gene ID	442938
mRNA Refseq	NM_001003350
Protein Refseq	NP_001003350
UniProt ID	A0A8C0M0A9

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