



Anti-KITL polyclonal antibody [Biotin] (DPABY-475)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Antigen Description

Stem cell factor (SCF), also known as c-kit ligand (KL), mast cell growth factor (MGF), and steel factor (SLF), is a widely expressed 28 - 40 kDa type I transmembrane glycoprotein. It promotes the survival, differentiation, and mobilization of multiple cell types including myeloid, erythroid, megakaryocytic, lymphoid, germ cell, and melanocyte progenitors. SCF is a primary growth and activation factor for mast cells and eosinophils. Mature human SCF consists of a 189 amino acid (aa) extracellular domain (ECD), a 23 aa transmembrane segment, and a 36 aa cytoplasmic tail. The ECD shows both N-linked and O-linked glycosylation. Proteolytic cleavage at two alternate sites in the extracellular juxtamembrane region releases a 25 kDa soluble molecule which is comparable to the only form produced by Steel-dickie mutant mice. An alternately spliced isoform of human SCF lacks 28 aa that encompasses the primary proteolytic recognition site. Within the ECD of the short isoform (corresponding to this recombinant protein), human SCF shares 75 - 83% aa sequence identity with canine, feline, mouse, and rat SCF. Rat SCF is active on mouse and human cells, but human SCF is only weakly active on mouse cells. Noncovalent dimers of transmembrane or soluble SCF interact with the receptor tyrosine kinase SCF-R/c-kit to trigger receptor dimerization and signaling. SCF assists in the recovery of cardiac function following myocardial infarction by increasing the number of cardiomyocytes and vascular channels.

Specificity	Detects mouse SCF in ELISAs and Western blots. In sandwich immunoassays, less than 3% cross-reactivity with recombinant human SCF is observed.
Immunogen	E. coli-derived recombinant mouse SCF . Lys26-Ala189 Accession Number Q78ED8
Isotype	IgG
Source/Host	Goat
Species Reactivity	Mouse
Purification	Antigen Affinity-purified

Conjugate	Biotin
Applications	Western Blot, ELISA Detection (Matched Pair)
Format	Liquid
Size	50 µg
Buffer	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein.
Preservative	None
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. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

GENE INFORMATION

Gene Name	Kitl kit ligand [Mus musculus (house mouse)]
Official Symbol	KITL
Synonyms	KITL; kit ligand; Gb; SF; Sl; Clo; Con; Mgf; SCF; SLF; blz; Kitlg; contrasted; cloud gray; C-kit ligand; Steel factor; grizzle-belly; stem cell factor; mast cell growth factor; hematopoietic growth factor KL;
Entrez Gene ID	17311
Protein Refseq	NP_038626
UniProt ID	P20826
Chromosome Location	10 D1; 10 51.4 cM
Pathway	Adaptive Immune System; Constitutive PI3K/AKT Signaling in Cancer; Cytokine-cytokine receptor interaction; DAP12 interactions; DAP12 signaling; Disease; Downstream signal transduction; Downstream signaling events of B Cell Receptor (BCR);
Function	cytokine activity; growth factor activity; protein binding; stem cell factor receptor binding;