



Anti-KITLG polyclonal antibody [Biotin] (DPABY-357)

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 human SCF/c-kit Ligand in ELISAs and Western blots. In sandwich immunoassays, approximately 55% cross-reactivity with recombinant feline SCF is observed, 20% cross-reactivity with recombinant canine SCF is observed, and less than 0.3% cross-reactivity with recombinant mouse SCF is observed.

Immunogen

E. coli-derived recombinant human SCF/c-kit Ligand . Glu26-Ala189 Accession Number P21583

Isotype

IgG

Source/Host

Goat

Species Reactivity	Human
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	KITLG KIT ligand [Homo sapiens (human)]
Official Symbol	KITLG
Synonyms	KITLG; KIT ligand; SF; MGF; SCF; FPH2; KL-1; Kitl; SHEP7; kit ligand; c-Kit ligand; steel factor; stem cell factor; mast cell growth factor; familial progressive hyperpigmentation 2;
Entrez Gene ID	4254
Protein Refseq	NP_000890
UniProt ID	A0A024RBC0
Chromosome Location	12q22
Pathway	Adaptive Immune System; C-MYB transcription factor network; Cell cycle; Constitutive PI3K/AKT Signaling in Cancer; Cytokine-cytokine receptor interaction; DAP12 interactions; DAP12 signaling; Disease;
Function	cytokine activity; growth factor activity; protein binding; stem cell factor receptor binding;