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Datasheet for ABIN1589652 **KIT Ligand Protein (KITLG)**

Overview

Quantity:	2 µg
Target:	KIT Ligand (KITLG)
Origin:	Mouse
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active

Product Details

Purpose:	SCF
Sequence:	MKEICGNPVT DNVKDITKLV ANLPNDYMIT LNYVAGMDVL PSHCWLRDMV IQLSLSLTTL LDKFSNISEG LSNYSIIDKL GKIVDDL VLC MEENAPKNIK ESPKRPETRS FTPPEFFSIF NRSIDAFKDF MVASDTSDCV LSSTLGPEKD SRVSVTKPFM LPPVA
Specificity:	Chromosomal location:10 D1, 10 57.0 cM
Characteristics:	Length (aa):165
Purity:	> 95 % by SDS-PAGE
Endotoxin Level:	< 0.1 ng per µg of mSCF

Target Details

Target:	KIT Ligand (KITLG)
Alternative Name:	SCF (KITLG Products)

Target Details

Background: Stem cell factor (SCF), also known as ckit 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 mouse SCF consists of a 189 amino acid (aa) extracellular domain (ECD), a 23 aa transmembrane segment, and a 36 aa cytoplasmic tail. Proteolytic cleavage at two alternate sites in the extracellular juxtamembrane region releases a 25 kDa soluble. An alternately spliced isoform of mouse SCF lacks 28 aa that encompasses the primary proteolytic recognition site. Within the ECD of the short isoform, mouse SCF shares 93% aa sequence identity with rat SCF and 72 %-75 % with canine, feline, and human 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/ckit to trigger receptor dimerization and signaling.

Synonyms: Kitl, Gb, SF, Sl, Clo, Con, Mgf, SCF, SLF, Kitlg, contrasted

Molecular Weight: 18.42 kDa

Gene ID: 17311

NCBI Accession: [NM_013598](#), [NP_038626](#)

UniProt: [P20826](#)

Pathways: [RTK Signaling](#), [Fc-epsilon Receptor Signaling Pathway](#), [EGFR Signaling Pathway](#), [Neurotrophin Signaling Pathway](#)

Application Details

Application Notes: The ED50 as determined by the dose-dependent stimulation of the proliferation of the human TF-1 cell line is in the range of 2-10 ng/mL.

Comment: Cytokines & Growth Factors

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Centrifuge vial prior to opening. Mouse SCF should be reconstituted in 50 mM acetic acid or water to a concentration of 0.1 mg/mL. This solution can be diluted in water or other buffer solutions or stored at -20 °C.

Handling

Buffer:	50 mM acetic acid
Handling Advice:	Avoid repeated freeze-thaw cycles. Freeze/thaw cycles will result in significant loss of activity.
Storage:	0 °C
Storage Comment:	The lyophilized mouse SCF is best stored desiccated below 0°C. Freeze/thaw cycles will result in significant loss of activity. Avoid repeated freeze-thaw cycles.