

Datasheet for ABIN4949036

**KIT Ligand Protein (KITLG) (AA 26-190) (His tag,AVI tag,Biotin)**[Go to Product page](#)**2** Images

## Overview

Quantity:	200 µg
Target:	KIT Ligand (KITLG)
Protein Characteristics:	AA 26-190
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This KIT Ligand protein is labelled with His tag,AVI tag,Biotin.
Application:	Functional Studies (Func)

## Product Details

Brand:	MABSol®,PrecisionAvi
Sequence:	AA 26-190
Specificity:	Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.
Characteristics:	This protein carries an Avi tag (Avitag™) at the C-terminus, followed by a polyhistidine tag. The protein has a calculated MW of 21.7 kDa. The protein migrates as 26-38 kDa under reducing (R) condition (SDS-PAGE) due to different glycosylation.
Purity:	>95 % as determined by SDS-PAGE.
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

## Target Details

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Target: KIT Ligand (KITLG)

Alternative Name: SCF ([KITLG Products](#))

Background: Kit ligand (KITLG) is also known as stem cell factor (SCF), mast cell growth factor (MGF), steel factor (SF), which belongs to the SCF family, and is a widely expressed 28 - 40 kDa type I transmembrane glycoprotein. KITLG is the ligand for the receptor-type protein-tyrosine kinase KIT. SCF / MGF plays an essential role in the regulation of cell survival and proliferation, hematopoiesis, stem cell maintenance, gametogenesis, mast cell development, migration and function, and in melanogenesis. KITLG / SCF binding can activate several signaling pathways. KITLG / SF Promotes phosphorylation of PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase, and subsequent activation of the kinase AKT1. KITLG / SCF and KIT also transmit signals via GRB2 and activation of RAS, RAF1 and the MAP kinases MAPK1/ERK2 and/or MAPK3/ERK1. KITLG / SCF and KIT promote activation of STAT family members STAT1, STAT3 and STAT5. KITLG / SCF and KIT promote activation of PLCG1, leading to the production of the cellular signaling molecules diacylglycerol and inositol 1, 4, 5 - trisphosphate. KITLG / SCF acts synergistically with other cytokines, probably interleukins.

Molecular Weight: 21.7 kDa

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

## Application Details

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Comment: Ready-to-use Avitag<sup>TM</sup> biotinylated protein:  
The product is exclusively produced using the Avitag<sup>TM</sup> technology. Briefly, a unique 15 amino acid peptide, the Avi tag, is introduced into the recombinant protein during expression vector construction. The single lysine residue in the Avi tag is enzymatically biotinylated by the E. Coli biotin ligase BirA.

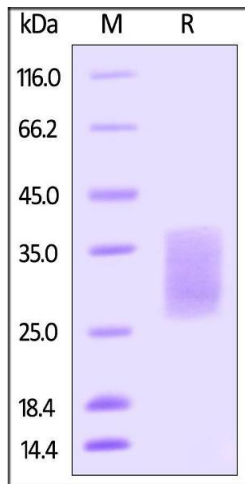
This single-point enzymatic labeling technique brings many advantages for commonly used binding assays. The biotinylation happens on the lysine residue of Avi tag, and therefore does NOT interfere with the target protein's natural binding activities. In addition, when immobilized on an avidin-coated surface, the protein orientation is uniform because the position of the Avi tag in the protein is precisely controlled.

Restrictions: For Research Use only

## Handling

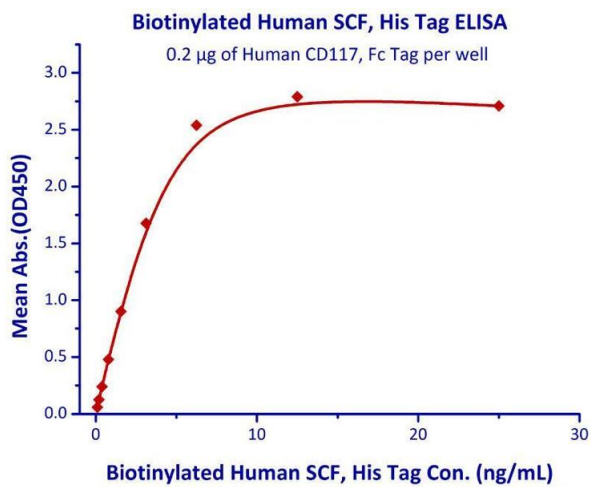
Format:	Lyophilized
Buffer:	PBS, pH 7.4
Handling Advice:	Please avoid repeated freeze-thaw cycles.
Storage:	-20 °C

## Images



### SDS-PAGE

**Image 1.** Biotinylated Human SCF, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.



**Image 2.** Measured by its binding ability in a functional ELISA. Immobilized Human CD117, Fc Tag with a linear range of 0.1-3.1 ng/mL.