Human Stem cell factor/mast cell growth factor,SCF/MGF ELISA kit

Product Code	CSB-E04718h
Abbreviation	KITLG
Protein Biological Process 1	Cell Adhesion
Target Name	KIT ligand
Uniprot No.	P21583
Alias	DKFZp686F2250, FPH2, KL-1, Kitl, MGF, SCF, SF, SHEP7, familial progressive hyperpigmentation 2|mast cell growth factor|steel factor|stem cell factor
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Protein Biological Process 3	Cell adhesion
Sample Types	serum, plasma, cell culture supernates
Detection Range	0.45 ng/mL-30 ng/mL
Sensitivity	0.11 ng/mL
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Immunology
Gene Names	KITLG
Tag Info	quantitative
Protein Description	Sandwich
Description	This human SCF ELISA kit employs the quantitative sandwich enzyme immunoassay technique to measure the levels of human SCF in multiple samples, including serum, plasma, or cell culture supernates. It also uses the enzyme-substrate chromogenic reaction to visualize and analyze the analyte levels through the color intensity. The intensity of the colored product is in direct proportion to the SCF levels in the sample and is measured at 450 nm through a microplate reader. SCF, also called KITLG or MGF, is of neural and smooth muscle origin and is involved in the regulation of cell proliferation, differentiation, and migration. It is a

cytokine that modulates hematopoiesis and other biological processes like mast cell maturation and activation. SCF-c-Kit signaling plays a key role in the maintenance of the hematopoietic stem cells (HSCs) and progenitor cells in the bone marrow. SCF is also critical in regulating the proliferation, differentiation and function of the interstitial cells of Cajal (ICCs), which are closely related to smooth muscle dysfunction.

Target Details

This gene encodes the ligand of the tyrosine-kinase receptor encoded by the KIT locus. This ligand is a pleiotropic factor that acts in utero in germ cell and neural cell development, and hematopoiesis, all believed to reflect a role in cell migration. In adults, it functions pleiotropically, while mostly noted for its continued requirement in hematopoiesis. Two transcript variants encoding different isoforms have been found for this gene.

Product Precision

Intra-assay Precision (Precision within an assay): CV%<8%

Three samples of known concentration were tested twenty times on one plate to assess.

Inter-assay Precision (Precision between assays): CV%<10%

Three samples of known concentration were tested in twenty assays to assess.

Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of human SCF/MGF in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

	Sample	Serum(n=4)
1:1	Average %	92
	Range %	87-96
1:2	Average %	86
	Range %	83-89
1:4	Average %	92
	Range %	88-97
1:8	Average %	91
	Range %	87-94

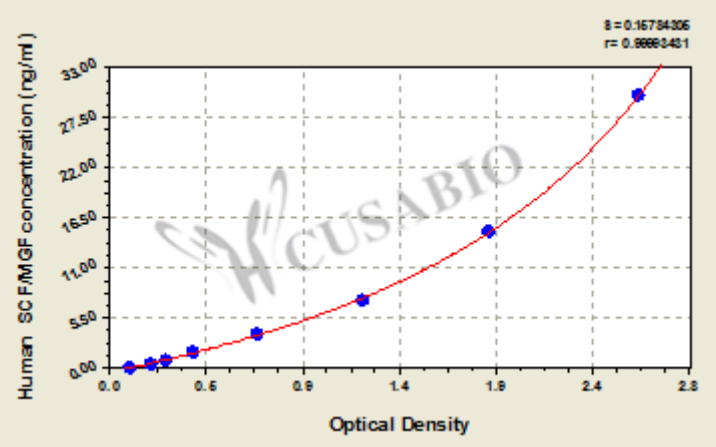
Recovery

The recovery of human SCF/MGF spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	103	98-107
EDTA plasma (n=4)	86	82-92

Typical

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



ng/ml	OD1	OD2	Average	Corrected
30	2.624	2.522	2.573	2.461
15	1.796	1.897	1.847	1.735
7.5	1.281	1.188	1.235	1.123
3.75	0.739	0.713	0.726	0.614
1.8	0.429	0.404	0.417	0.305
0.9	0.277	0.295	0.286	0.174
0.45	0.215	0.212	0.214	0.102
0	0.111	0.113	0.112	

Msds

{"0":{"fileurl":"https://www.cusabio.com/uploadfile/msds/MSDS CSB-E04718h.pdf","filename":"MSDS"}}