

Recombinant Human KIT, Fc Chimera

Cat. No. KIT-148H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human stem cell factor receptor was fused to the Fc region of human IgG1 (aa 93-330). The chimeric protein was expressed in modified <i>human 293 cells</i> .
Species	Human
Source	HEK293
Description	Stem cell factor receptor (SC R), also known as c-kit, has a molecular weight of 145 kDa as a mature protein and is a member of the type III receptor tyrosine kinase (RTK) family that includes platelet-derived growth factor (PDGF) receptors and the macrophage colony-stimulating factor 1 (CSF-1) (c-fms) receptor. SCFR is essential for the development of normal hematopoietic cells and plays an important role in the survival, proliferation, and differentiation of mast cells, melanocytes, and germ cells. SCF R contains five extracellular immunoglobulin-like (Ig) domains, a single juxtamembrane domain (JMD), a cytoplasmic tyrosine kinase domain, Binding of SCF R to its ligand (stem cell factor; SCF) induces receptor dimerization, trans autophosphorylation of the kinase domain, recruitment of signaling proteins via phosphotyrosine binding or Src homology 2 (SH2) domains.
Molecular Mass	SCFR-Fc Chimera migrates as a broad band between 90 and 150 kDa in SDS-PAGE due to post-translational modifications, in particular glycosylation. This compares with the unmodified SCFR -Fc Chimera that has a predicted molecular mass of 83.1 kDa.
PI	SCFR-Fc Chimera separates into a number of isoforms with a pI between 4.5 and 8

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	in 2D PAGE due to post-translational modifications, in particular glycosylation. This compares with the unmodified SCF R – Fc Chimera that has a predicted pI of 6.6.
% Carbohydrate	purified SCFR - Fc Chimera consists of 5-45% carbohydrate by weight.
Glycosylation	SCFR - FcB Chimera is N- and O-glycosylated.
Purity	>95%, as determined by SDS-PAGE and visualized by silver stain.
Formulation	When reconstituted in 0.5 ml sterile phosphate-buffered saline, the solution will contain 1% human serum albumin (HSA) and 10% trehalose.
Reconstitution	It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial.
Storage	Lyophilized products should be stored at 2 to 8°C. Following reconstitution short-term storage at 4°C is recommended, and longer-term storage of aliquots at -18 to -20°C.
Activity	The ED50 of the SCF R - Fc Chimera typically 1-3 ug/ml as measured by its ability to neutralize SCF mediated proliferation using the human growth factor dependent M-07e cell line.

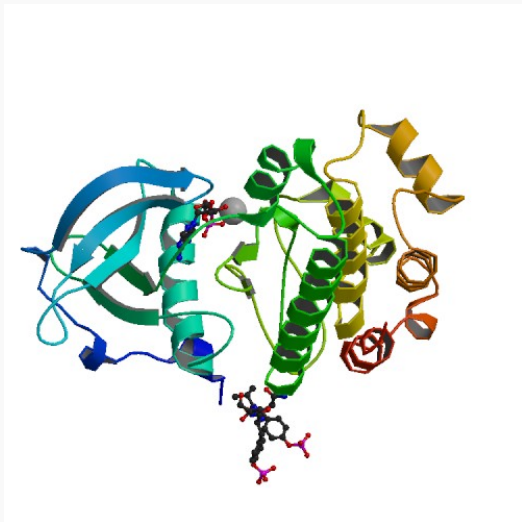
GENE INFORMATION

Gene Name	KIT v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog [Homo sapiens]
Synonyms	v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog; PBT; SCFR; C-Kit; CD117; KIT; soluble KIT variant 1; mast/stem cell growth factor receptor; proto-oncogene tyrosine-protein kinase Kit; piebald trait; EC 2.7.10.1; c-kit; CD117 antigen; Proto-oncogene tyrosine-protein kinase Kit

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Gene ID	3815
mRNA Refseq	NM_000222
Protein Refseq	NP_000213
MIM	164920
UniProt ID	P10721
Chromosome Location	4q11-q12
Pathway	Cytokine-cytokine receptor interaction; Melanogenesis; Pathways in cancer; Acute myeloid leukemia; Endocytosis; Hematopoietic cell lineage
Function	ATP binding; nucleotide binding; protein binding; receptor activity; stem cell factor receptor activity; transferase activity; receptor signaling protein tyrosine kinase activity
PDB rendering based on 1pkg.	

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