

Recombinant Human KIT, His-tagged

Cat. No. KIT-540H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human c-KIT was expressed by baculovirus in <i>Sf9</i> insect cells using an N-terminal His tag. MW = 50 kDa.
Species	Human
Source	Sf9 Cells
Description	c-KIT is a proto-oncogene and a type 3 transmembrane receptor for MGF (mast cell growth factor, also known as stem cell factor). c-KIT was first identified as the cellular homolog of the feline sarcoma viral oncogene v-kit. c-KIT together with its ligand regulates growth and activation of a variety of hemopoietic and non-hemopoietic cells. Mutations in c-KIT are associated with gastrointestinal stromal tumors, mast cell disease, acute myelogenous leukemia, and piebaldism. Recently, deregulation of the KIT receptor TK by the prevalent activation loop mutation D816V has served as a focal point in therapeutic strategies aimed curbing neoplastic mast cell growth.
Purity	>80% by SDS-PAGE.
Specific Activity	15 U/mg. One unit is defined as the amount of enzyme that will phosphorylate 1 nmol of tyrosine substrate per minute at pH 7.4 and 30°C. Assay buffer: 50 mM HEPES, pH 7.4, 3 mM MgCl ₂ , 3 mM MnCl ₂ , 1 mM DTT, 3 uM Na-orthovanadate, 0.1 mM ATP, 30 ug/ml Poly (Glu:Tyr)4:1 substrate, and 4 ug /ml recombinant cKit.
Application	Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.

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Formulated In	25 mM Tris-HCl, pH 8.0, 100 mM NaCl, 0.05% Tween-20, 50% glycerol, and 3 mM DTT.
Stability	>6 months at –80°C.
GENE INFORMATION	
Gene Name	KIT v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog [Homo sapiens]
Synonyms	KIT; v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog; PBT; SCFR; C-Kit; CD117; v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog; soluble KIT variant 1; mast/stem cell growth factor receptor; proto-oncogene tyrosine-protein kinase Kit; EC 2.7.10.1
Gene ID	3815
mRNA Refseq	NM_000222
Protein Refseq	NP_000213
MIM	164920
UniProt ID	P10721
Chromosome Location	4q11-q12
Pathway	Acute myeloid leukemia; Cytokine-cytokine receptor interaction; Endocytosis; Hematopoietic cell lineage; Melanogenesis; Pathways in cancer
Function	ATP binding; nucleotide binding; protein binding; receptor signaling protein tyrosine

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kinase activity; stem cell factor receptor activity; transferase activity

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