

## Active Recombinant Human KIT, GST-tagged

**Cat. No.** KIT-818H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| <b>Product Overview</b> | Recombinant human c-KIT (544-end) was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Source</b>           | Sf9 Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>ProteinLength</b>    | 544-end                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Description</b>      | 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 at curbing neoplastic mast cell growth. |
| <b>Form</b>             | Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Bio-activity</b>     | 16 nmol/min/mg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Molecular Mass</b>   | ~73 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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| <b>Purity</b>           | >80%                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Applications</b>     | Kinase Assay                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Stability</b>        | 1yr at –70°C from date of shipment                                                                                                                                                                                                                                                                                                                                                              |
| <b>Storage</b>          | Store product at –70oC. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.                                                                                                                                                         |
| <b>Concentration</b>    | 0.1ug/ul                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>GENE INFORMATION</b> |                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Gene Name</b>        | <a href="#">KIT v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog [ Homo sapiens ]</a>                                                                                                                                                                                                                                                                                              |
| <b>Official Symbol</b>  | KIT                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Synonyms</b>         | KIT; v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog; PBT, piebald trait; mast/stem cell growth factor receptor Kit; C Kit; CD117; SCFR; p145 c-kit; proto-oncogene c-Kit; piebald trait protein; soluble KIT variant 1; tyrosine-protein kinase Kit; proto-oncogene tyrosine-protein kinase Kit; v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene-like protein; PBT; C-Kit; |
| <b>Gene ID</b>          | <a href="#">3815</a>                                                                                                                                                                                                                                                                                                                                                                            |
| <b>mRNA Refseq</b>      | <a href="#">NM_000222</a>                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Protein Refseq</b>   | <a href="#">NP_000213</a>                                                                                                                                                                                                                                                                                                                                                                       |

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| <b>MIM</b>                 | 164920                                                                                                                                                                                                                                                                                                                                                                           |
| <b>UniProt ID</b>          | P10721                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Chromosome Location</b> | 4q11-q12                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Pathway</b>             | Acute myeloid leukemia, organism-specific biosystem; Acute myeloid leukemia, conserved biosystem; C-MYB transcription factor network, organism-specific biosystem; Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; Endocytosis, organism-specific biosystem; Endocytosis, conserved biosystem; |
| <b>Function</b>            | ATP binding; cytokine binding; metal ion binding; nucleotide binding; protease binding; protein binding; protein homodimerization activity; protein tyrosine kinase activity; receptor activity; receptor signaling protein tyrosine kinase activity; stem cell factor receptor activity; transmembrane receptor protein tyrosine kinase activity;                               |