

# Recombinant Human KIT Protein, His-tagged, Alexa Fluor 647 conjugated

**Cat. No.** KIT-3947HAF647    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| <b>Product Overview</b> | Alexa Fluor 647 conjugated recombinant human KIT (Gln26-Thr516) protein was fused to His-tag at C-terminus and expressed in human 293 cells (HEK293).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>ProteinLength</b>    | Gln26-Thr516                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Description</b>      | Mast/stem cell growth factor receptor Kit (c-Kit), a member of the protein kinase superfamily, Tyr protein kinase family and CSF-1/PDGF receptor subfamily, is also known as piebald trait protein (PBT), p145 c-kit, tyrosine-protein kinase Kit and CD117, which contains five Ig-like C2-type (immunoglobulin-like) domains and one protein kinase domain. CD117 acts as cell-surface receptor for the cytokine KITLG/SCF and 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. In response to KITLG/SCF binding, CD117 can activate several signaling pathways. Furthermore, Activated KIT promotes phosphorylation of the protein phosphatases PTPN6/SHP-1 and PTPRU, and of the transcription factors STAT1, STAT3, STAT5A and STAT5B. |
| <b>Form</b>             | Lyophilized                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Molecular Mass</b>   | The protein has a calculated MW of 57.1 kDa. The protein migrates as 66-85 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

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|                                     |                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                     | under reducing (R) condition (SDS-PAGE) due to glycosylation.                                                                                                                                                                                                                                                                            |
| <b>N-terminal Sequence Analysis</b> | Gln 26                                                                                                                                                                                                                                                                                                                                   |
| <b>Endotoxin</b>                    | < 1.0 EU/ µg by the LAL method.                                                                                                                                                                                                                                                                                                          |
| <b>Purity</b>                       | > 95 % as determined by SDS-PAGE                                                                                                                                                                                                                                                                                                         |
| <b>Characteristic</b>               | Disulfide-linked homodimer<br>Labeled with Alexa Fluor 647 via amines<br>Excitation = 650 nm<br>Emission = 668 nm                                                                                                                                                                                                                        |
| <b>Storage</b>                      | For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower.<br>Please avoid repeated freeze-thaw cycles.<br>This product is stable after storage at:<br>-20 to -70 centigrade for 12 months in lyophilized state;<br>-70 centigrade for 3 months under sterile conditions after reconstitution. |
| <b>Storage Buffer</b>               | Lyophilized from 0.22 µm filtered solution in PBS, pH7.4, 10% trehalose.                                                                                                                                                                                                                                                                 |
| <b>Reconstitution</b>               | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 µg/µL. Centrifuge the vial at 4 centigrade before opening to recover the entire contents.                                                                                                                                                   |
| <b>Conjugation</b>                  | Alexa Fluor 647                                                                                                                                                                                                                                                                                                                          |

## GENE INFORMATION

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|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | KIT                                                                                                                                                                                                                                                                                                                                                                                            |
| <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>         | 3815                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>mRNA Refseq</b>     | NM_000222                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Protein Refseq</b>  | NP_000213                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>MIM</b>             | 164920                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>UniProt ID</b>      | P10721                                                                                                                                                                                                                                                                                                                                                                                         |

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