

# Active Recombinant Human TEK protein (Y897H), GST-tagged

**Cat. No.** TEK-42H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Human TIE2 (Y897H) (771-end) fused with GST tag at N-terminal was expressed in Sf9 insect cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Source</b>           | Insect Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>ProteinLength</b>    | 771-end a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Description</b>      | TIE2 or TEK is a receptor tyrosine kinase that is expressed principally on vascular endothelium. Disrupting TIE2 function in mice results in embryonic lethality with defects in embryonic vasculature, suggests a role in blood vessel maturation and maintenance. Angiopoietin-1 is a secreted growth factor that binds to and activates the TIE2 receptor tyrosine kinase. SHP2 and GRB2 are recruited to the activated TIE 2 kinase domain and are part of the cellular responses that mediate TIE2 function. TIE2 expression is upregulated in the endothelium of vascular "hot spots" in human breast cancer specimens. However, TIE2 is also overexpressed in areas of active angiogenesis in normal tissues. |
| <b>Form</b>             | 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>     | The specific activity was determined to be 90 nmol/min/mg.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Molecular Mass</b>   | ~65 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>              | >95% by densitometry                                                                                                                                                                                                                             |
| <b>Applications</b>        | Kinase Assay                                                                                                                                                                                                                                     |
| <b>Storage</b>             | Store product at –70 centigrade. 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>       | 0.1 ug/ul                                                                                                                                                                                                                                        |
| <b>GENE INFORMATION</b>    |                                                                                                                                                                                                                                                  |
| <b>Gene Name</b>           | TEK TEK tyrosine kinase, endothelial [ Homo sapiens ]                                                                                                                                                                                            |
| <b>Official Symbol</b>     | TEK                                                                                                                                                                                                                                              |
| <b>Synonyms</b>            | TEK; CD202b; TIE 2; TIE2; VMCM1; hTIE2; p140 TEK; VMCM; TIE-2; CD202B;                                                                                                                                                                           |
| <b>Gene ID</b>             | 7010                                                                                                                                                                                                                                             |
| <b>mRNA Refseq</b>         | NM_000459                                                                                                                                                                                                                                        |
| <b>Protein Refseq</b>      | NP_000450                                                                                                                                                                                                                                        |
| <b>MIM</b>                 | 600221                                                                                                                                                                                                                                           |
| <b>UniProt ID</b>          | Q02763                                                                                                                                                                                                                                           |
| <b>Chromosome Location</b> | 9p21                                                                                                                                                                                                                                             |
| <b>Pathway</b>             | Angiogenesis, organism-specific biosystem; Angiopoietin receptor Tie2-mediated                                                                                                                                                                   |

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signaling, organism-specific biosystem; Cell surface interactions at the vascular wall, organism-specific biosystem; Hemostasis, organism-specific biosystem; Rheumatoid arthritis, organism-specific biosystem; Rheumatoid arthritis, conserved biosystem; Tie2 Signaling, organism-specific biosystem;

**Function**

ATP binding; nucleotide binding; protein binding; protein kinase activity; protein tyrosine kinase activity; protein tyrosine kinase activity; receptor activity; transmembrane receptor protein tyrosine kinase activity;