

## Recombinant Mouse Tek, Fc-tagged

**Cat. No.** Tek-89M    **Lot. No.** (See product label)

### SPECIFICATION

**Product Overview**

Recombinant Mouse Soluble TIE-2 fused with the Fc part of human IgG1 produced in CHO is a monomeric, glycosylated, polypeptide containing 740 amino acids and having a total molecular mass of 260 kDa. Mouse TIE-2/Fc monomer has a calculated molecular mass of approximately 105 kDa. As a result of glycosylation, the recombinant protein migrates as an approximately 140 kDa protein in SDS-PAGE under reducing conditions. The TIE2 Fc Chimera is purified by proprietary chromatographic techniques.

**Species**                      Mouse

**Source**                        CHO

**Description**

TIE-1 (tyrosine kinase with Ig and EGF homology domains 1) and TIE-2/Tek comprise a receptor tyrosine kinase (RTK) subfamily with unique structural characteristics: two immunoglobulin-like domains flanking three epidermal growth factor (EGF)-like domains and followed by three fibronectin type III-like repeats in the extracellular region and a split tyrosine kinase domain in the cytoplasmic region. These receptors are expressed primarily on endothelial and hematopoietic progenitor cells and play critical roles in angiogenesis, vasculogenesis and hematopoiesis. Human TIE-1 cDNA encodes a 1122 amino acid (aa) residue precursor protein with an 18 residue putative signal peptide, a 726 residue extracellular domain and a 353 residue cytoplasmic domain. Two ligands, angiopoietin-1 (Ang1) and angiopoietin-2 (Ang2), which bind TIE-2 with high-affinity have been identified. Ang2 has been reported to act as an antagonist for Ang1. Mice engineered to overexpress Ang2 or to lack Ang1 or Tie-1

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	display similar angiogenic defects.
<b>Physical Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Purity</b>	Greater than 90.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
<b>Formulation</b>	TIE-2 Fc Chimera was lyophilized from a concentrated (1 mg/ml) sterile solution containing 1x PBS.
<b>Solubility</b>	It is recommended to reconstitute the lyophilized TIE-2 Fc Chimera in sterile water not less than 100g/ml, which can then be further diluted to other aqueous solutions.
<b>Storage</b>	Lyophilized sTIE-2 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution TIE-2 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

## GENE INFORMATION

<b>Gene Name</b>	<a href="#">Tek endothelial-specific receptor tyrosine kinase [ Mus musculus ]</a>
<b>Synonyms</b>	Tek; endothelial-specific receptor tyrosine kinase; Hyk; Tie2; tie-2; Cd202b; AA517024
<b>Gene ID</b>	<a href="#">21687</a>
<b>mRNA Refseq</b>	<a href="#">NM_013690</a>
<b>Protein Refseq</b>	<a href="#">NP_038718</a>

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<b>UniProt ID</b>	Q02858
<b>Chromosome Location</b>	4 43.6 cM
<b>Function</b>	ATP binding; kinase activity; nucleotide binding; protein kinase activity; protein tyrosine kinase activity; receptor activity; transferase activity; transmembrane receptor protein tyrosine kinase activity

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