

Recombinant Human sTIE-1/Fc Chimera

Description: Recombinant human soluble TIE-1 was fused with the Fc part of human IgG₁. The soluble receptor protein consists of the full extracellular domain (Met1-Glu749). The recombinant mature TIE-1/Fc is a disulfide-linked homodimeric protein. Human TIE-1/Fc monomer has a calculated molecular mass of approximately 105 kDa. As a result of glycosylation, the recombinant protein migrates as an approximately 125 kDa protein in SDS-PAGE under reducing conditions.

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 1124 amino acid (aa) residue precursor protein with an 18 residue putative signal peptide, a 727 residue extracellular domain and a 354 residue cytoplasmic domain. Whereas two ligands have been described for TIE-2 [angiopoietin-1 (Ang1) and angiopoietin-2 (Ang2)], so far no ligand was found for TIE-1.

Source:	Insect cells
Molecular Weight:	250 kDa
Subunit:	glycosylated dimer
Purity:	> 90%, by SDS-PAGE and visualised by silver stain
Endotoxin level:	< 0.1 ng per µg sTIE-1/Fc
Stabilizer:	none
Buffer:	PBS
Formulation:	lyophilized

Biological Activity: Since a ligand for TIE-1 has not yet been identified, the recombinant protein was not tested for biological activity.

Stability: Samples are stable for 2-4 weeks at +4°C. sTIE-1/Fc should be stored in working aliquots at -20°C to -80°C. **Avoid repeated freeze-thaw cycles!**

Usage: sTIE-1/Fc is offered for research use. Not for drug use. **Not for human use!**

Catalogue number: SFC-011	Size: 100µg
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Literature: [Sato et al., PNAS 90:9355, 1993; Gale et al., Gen Dev 13:1055, 1999]