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Recombinant Human sTIE-2/Fc Chimera

Description: Recombinant human soluble TIE-2/Tek was fused with the Fc part of human IgG_1. The recombinant mature sTIE-2/Fc is a disulfide-linked homodimeric protein. The sTIE-2/Fc monomers have a mass of approximately 125 kDa. The soluble receptor protein consists of the full extracellular domain (Met1-Val730). 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-2 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. 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-2 display similar angiogenic defects. The recombinant mature TIE-2-Fc is a disulfide-linked homodimeric protein. Human 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 125 kDa protein in SDS-PAGE under reducing conditions.

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 ? g sTIE-2/Fc
Stabilizer:	none
Buffer:	PBS
Formulation:	lyophilized

Biological Activity: Measured in a functional ELISA assay. When TIE-2/Fc is immobilized at 4 µg/mL (100 µl/well), it binds rh Angiopoietin-2 with a linear range of 2 - 100 ng/ml.

Reconstitution: The lyophilised sTIE-2/Fc is soluble in water and most aqueous buffers. The lyophilised sTIE-2/Fc should be reconstituted in PBS or medium to a concentration not lower than 50 µg/ml.

Stability: Lyophilised samples are stable for greater than six months at –20°C to –70°C. Reconstituted sTIE-2/Fc should be stored in working aliquots at -20°C. **Avoid repeated freeze-thaw cycles!**

Usage: sTIE-2/Fc is offered for research use. Not for drug use. **Not for human use!**

Catalogue number:	SFC-014	**Size:**	100 µg
		Range:	10-100 ng/ml

Literature: [Sato et al., PNAS 90:9355, 1993; Gale et al., Gen Dev 13:1055, 1999]

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