



Product Datasheet

Product Name	TIE1 Fc Human Recombinant
Catalog No	CB500852
Source	<i>Insect Cells</i>
Synonyms	Tyrosine kinase with immunoglobulin-like and EGF-like domains 1, JTK14, TIE, TIE1.

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 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.

Soluble TIE-1 Human Recombinant fused with the Fc part of human IgG₁ produced in baculovirus is a monomeric, glycosylated, polypeptide containing 749 amino acids and having a total molecular mass of 250 kDa. 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.

The TIE1 Fc Chimera is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

TIE-1 Fc Chimera was lyophilized from a concentrated (1 mg/ml) sterile solution containing 1x PBS.

Solubility

It is recommended to reconstitute the lyophilized TIE-1 Fc Chimera in sterile water not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized sTIE-1 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution TIE-1 should be stored at 4°C between 2-7 days and for future use below -18°C.

Purity

Greater than 90.0% as determined by:
(A) Analysis by RP-HPLC.
(B) Analysis by SDS-PAGE