

DA3537X

Recombinant Human sTIE-1/Fc Chimera

Alternate names:

TIE, Tie-1, Tyrosine-protein kinase receptor Tie-1

Quantity:

0.1 mg

Background:

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.

Uniprot ID:

[P35590](#)

NCBI:

[NP_005415.1](#)

GeneID:

[7075](#)

Species:

Human

Source:

Insect cells

Format:

State: Lyophilized purified protein.

Purity: >90% by SDS-PAGE and visualised by silver stain.

Buffer System: PBS without stabilizers.

Endotoxin Level: < 0.1 ng per µg of sTIE-1/Fc

Reconstitution: Restore in PBS or medium to a concentration not lower than 50 µg/ml. The lyophilised sTIE-1/Fc is soluble in water and most aqueous buffers.

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.

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

Molecular weight: 250 kDa

Storage:

Store Lyophilized at -20°C.

Reconstituted sTIE-1/Fc should be stored in working aliquots at -20°C to -70°C.

Avoid repeated freeze-thaw cycles!

Shelf life: One year from despatch.

General Readings:

1. Sato et al., PNAS 90:9355, 1993.
2. Gale et al., Gen Dev 13:1055, 1999.