



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet Recombinant Human TIE-2, Fc Chimera

Catalog No.
228-11515

Source
Insect Cells.

Synonyms

Angiopoietin-1 receptor precursor, Tyrosine-protein kinase receptor TIE-2, hTIE2, Tyrosine-protein kinase receptor TEK, p140 TEK, Tunica interna endothelial cell kinase, CD202b, VMCM, VMCM1, TIE2.

Introduction

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 over express Ang2 or to lack Ang1 or Tie-1 display similar angiogenic defects.

Description

Soluble TIE-2 Human Recombinant fused with the Fc part of human IgG1 produced in baculovirus is a monomeric, glycosylated, polypeptide containing 730 amino acids and having a total molecular mass of 250 kDa. Human TIE-2/Fc monomer has a calculated molecular mass of approximately 125 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.

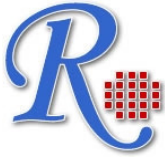
Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

TIE-2 Fc Chimera was lyophilized from a concentrated (1 mg/ml) sterile solution containing 1x PBS.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Solubility

It is recommended to reconstitute the lyophilized TIE-2 Fc Chimera in sterile water not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Stability

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.

Purity

Greater than 90.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Analysis by SDS-PAGE.

Biological Activity

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

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