Recombinant Mouse soluble TIE-1/Fc Chimera

FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no:	**SFC-031**
Size:	20 µg
Lot. No.:	According to product label
Country of origin:	Germany

Scientific Background

Gene:	*tie1*
Synonyms:	Tyrosine-protein kinase Tie-1

Recombinant murine soluble TIE-1 was fused with the Fc part of human IgG_1. The recombinant mature sTIE-1/Fc is a disulfide-linked homodimeric protein.
The sTIE-1/Fc monomers have a mass of approximately 105 kDa. As a result of glycosylation, the recombinant protein migrates as an approximately 130 kDa protein in SDS-PAGE under reducing conditions. The soluble receptor protein consists of the full extracellular domain (Val23-Glu749).
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. Murine TIE-1 cDNA encodes a 1134 amino acid (aa) residue precursor protein with an 22 residue putative signal peptide, a 733 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.

References

1. Partanen J and DJ Dumont (1999) Curr Top Microbiol Immunol 237:159.
2. Takakura N et al, (1998) Immunity 9:677.
3. Procopio W et al, (1999) J Biol Chem 274:30196.
4. Sato et al. (1993) PNAS 90:9355
5.Gale et al., (1999) Gen Dev 13:1055

Sequence

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VDLTLLANLRITDPQRFFLTCVSGEAGAGRSSDPPLLLEKDDRIVRTFPPGQ
PLYLARNGSHQVTLRGFSKPSDLVGVFSCVGGAGARRTRVLYVHNSPGAHLF
PDKVTHTVNKGDTAVLSAHVHKEKQTDVIWKNNGSYFNTLDWQEADDGRFQL
QLQNVQPPSSGIYSATYLEASPLGSAFFRLIVRGCGAGRWGPGCVKDCPGCL
HGGVCHDHDGECVCPPGFTGTRCEQACREGRFGQSCQEQCPGTAGCRGLTFC
LPDPYGCSCGSGWRGSQCQEACAPDHFGADCRLQCQCQNGGTCDRFSGCVCP
SGWHGVHCEKSDRIPQILSMATEVEFNIGTMPRINCAAAGNPFPVRGSMKLR
KPDGTMLLSTKVIVEPDRTTAEFEVPSLTLGDSGFWECRVSTSGGQDSRRFK
VNVKVPPVPLTAPRLLAKQSRQLVVSPLVSFSGDGPISSVRLHYRPQDSTIA
WSAIVVDPSENVTLMNLKPKTGYNVRVQLSRPGEGGEGGWGPSALMTTDCPE
PLLQPWLESWHVEGPDRLRVSWSLPSVPLSGDGFLLRLWDGARGQERRENIS
FPQARTALLTGLTPGTHYQLDVRLYHCTLLGPASPPAHVHLPPSGPPAPRHL
HAQALSDSEIQLMWQHPEAPSGPISKYIVEIQVAGGSGDPQWMDVDRPEETS
IIVRGLNASTRYLFRVRASVQGLGDWSNTVEEATLGNGLQSEDPVRESRAAE
EGLTRSDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDV
SHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKE
YKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVK
GFYPSDIAVEWESNGQPENNYKTTPPMLDSDGSFFLYSKLTVDKSRWQQGNV
FSCSVMHEALHNHYTQKSLSLSPGK
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Database References

Protein RefSeq:	NP_035717
Uniprot ID:	Q06806
mRNA RefSeq:	NM_011587

Product Specifications

	Wählen Sie ein Element aus.
Expressed in	CHO cells
Purity	> 90% by SDS-PAGE & silver stain
Buffer	PBS
Stabilizer	None
Formulation	lyophilized
Length (aa):	961
MW:	260 kDa Dimer

Stability: Lyophilized samples are stable for greater than six months at –20°C to –70°C. Reconstituted sTIE-1/Fc should be stored in working aliquots at -20°C.

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

AVOID REPEATED FREEZE AND THAW CYCLES!

Biological Activity: Bioassay data are not available.

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Recombinant Mouse soluble TIE-1/Fc Chimera

Handling/Application

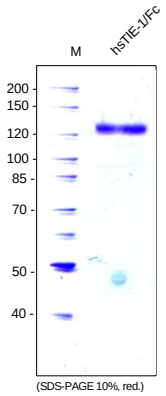

Fig. 1: SDS-PAGE analysis of recombinant mouse soluble TIE-1/Fc produced in CHO cells. Sample was loaded in 10% SDS-polyacrylamide gel under reducing condition and stained with Coomassie blue.

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