



# Recombinant Mouse soluble TIE-1-His Receptor



**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

<b>Cat.-no:</b>	<b>S01-M42</b>
<b>Size:</b>	50 µg
<b>Lot. No.:</b>	According to product label
<b>Country of origin:</b>	Germany

## Scientific Background

<b>Gene:</b>	<i>tie1</i>
<b>Synonyms:</b>	Tyrosine-protein kinase Tie-1

Recombinant mouse soluble TIE-1 was fused with a 6x His-tag at the C-terminus. The soluble receptor protein consists of the full extracellular domain (Ser22-Ala748). Mouse sTIE-1 monomer has a calculated molecular mass of approximately 79,8 kDa. As a result of glycosylation, the recombinant protein migrates as an approximately 95 kDa protein in SDS-PAGE under reducing conditions. 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.

## References

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

## Sequence

```
SVDLTLLANLRI TDPQRFFLTCSGEAGAGRSSDPPLLEKDDRIVRTFPPG
QPLYLARNGSHQVTLRGFSKPSDLVGVFSCVGGAGARRTRVLYVHNSPGAHL
FPDKVTHTVNKGDTAVLSAHVHKEKQTDVIWKNNGSYFNTLDWQEADDGRFQ
LQLQNVQPPSSGIYSATYLEASPLGSAFFRLIVRGCAGRWGPGCVKDCPGC
LHGGVCHDHDGECVCPGFTGTRECEQACREGRFGQSCQECPGTAGCRGLTF
CLPDYPYGCSCGSGWRGSCQCEACAPDHFADCR LQCQCQNGGTCDRFSGCVC
PSGWHGVHCEKSDRI PQILSMATEVEFNIGTMPRINCAAAGNPFVVRGSMKL
RKP DGTMLLSTKVI VEPDR TAEFEVPSLTLGDSGFWECEVSTSGGQDSRRF
KVNKVPVPLTAPRLLAKQSRQLVVSPLVSFSGDGPISVRLHYRPQDSTI
AWSAI VVDPSENVTLMLNPKPTGYNVVRVQLSRPGE GEGGWGSPALMTDCP
EPLLQPWLESWHVEGPDRLRVSWSLPSVPLSGDGFLLRLWDGARGQERRENI
SFPQARTALLTGLTPGTHYQLDVRLYHCTLLGPASPPAHVHLPPSGPPAPRH
LHAQALS DSEIQLMWQHPEAPSGPISKYI VEIQVAGSGDPQWMDVDRPEET
SIVRGLNASTRYLFRVRASVQGLGDWSNTVEEATLGNLQSEDPVRESRAT
RHHHHHH
```

## Database References

<b>Protein RefSeq:</b>	NP_03517.2
<b>Uniprot ID:</b>	Q06806
<b>mRNA RefSeq:</b>	NM_011587.2

## Product Specifications

<b>Expressed in</b>	Insect cells
<b>Purity</b>	> 95% by SDS-PAGE & silver stain
<b>Buffer</b>	PBS
<b>Stabilizer</b>	None
<b>Formulation</b>	lyophilized
<b>Length (aa):</b>	735
<b>MW:</b>	95 kDa
<b>Result by N-terminal sequencing</b>	SVDLTLLANL

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

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



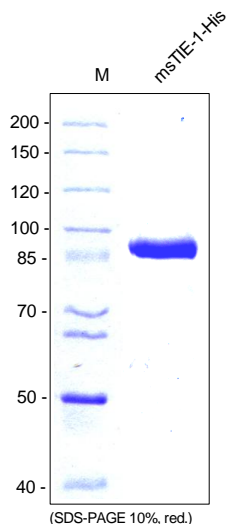
**AVOID REPEATED FREEZE AND THAW CYCLES!**

**Biological Activity:** Bioassay data are not available.



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## Handling/Application



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