ALPHA DIAGNOSTIC INTERNATIONAL

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Product Specification Sheet

Tyrosine Protein Kinase Receptor (TIE-2) Protein.

Cat. TIE26-R-20	Recombinant **Mouse** Tie-2-Fc protein Chimera **FORM**: Soln Lyophilized	**SIZE**: 20 ug
Cat. TIE26-R-100	Recombinant **Mouse** Tie—Fc protein Chimera **FORM**: Soln Lyophilized	**SIZE**: 100 ug

Embryonic vascular system undergoes a series of complex, highly regulated series of events involving differentiation, migration and association of primitive endothelial cells. This process is termed vasculogenesis. A further remodeling of the primitive vascular system forms the mature cardiovascular system. This process is known as angiogenesis (sprouting of new capillary vessels from pre-existing vasculature). A family of receptor tyrosine kinases **TIE1 and TIE 2** or Tek has been identified in vascular endothelium and hematopoietic cells. Mice lacking TIE 1 or TIE 2 are lethal. Ties may represent the earliest endothelial cell lineage marker and may regulate the endothelial cell proliferation, differentiation, and proper patterning during vasculogenesis. TIEs appear to be acting downstream of the VEGFRs. Tie-1 (human 1138 AA; mouse 1134 aa) is a type 1 membrane receptor protein specifically expressed in developing vascular endothelial cells. Tie-1 extracellular portion (25-279 aa) contains 3 fibronectin type III-like and 2 Ig-like C2-type, and 3-EGF-like domains.

Source of Antigen

Recombinant Mouse Tie-2 protein (23-744 aa, EC domain) was expressed in NSO cells as His-tagged Fc protein Chimera (~107 kda) and purified (>90%). Recombinant chimeric Tie-2 protein migrates as ~125-135 kda under reducing conditions due to glycosylation.

Endotoxin concentration is <0.1 ng/1 ug of the protein. Biological activity is not established.

It is supplied in 20 ug or 100 ug/vial in PBS pH 7.4 and 0.1% bovine serum albumin (BSA) in liquid (1 mg/ml) or powder form. Reconstitute the powder in PBS containing 0.1% albumin. The solution can sterile filtered if necessary.

Store powder at –20oC for 6-12 months. Reconstituted samples should be stored frozen at –20oC or below for ~3 months.

Biological activity

Biological activity of mouse Tie-2-Fc chimeric protein was determined by its ability to bind ang-2. rmTie-2/Fc, coated at ~5 µg/mL (100 µL/well) binds rhAng-2 with a linear range of 2 - 50 ng/mL.

General References: (1) Lin P et al (1998) PNAS 95, 8829-8834; Peters KG et al (1998) Br. J. Cancer 77, 51; Ziegler SF et al (1993) Oncogene 8, 663; Vikkula M et al (1996) Cell 87, 1181; Sato TN et al (1993) PNAS 90, 12056; Dumont DJ et al (1993) Oncogene 8, 1293; Horita K et al (1992) BBRC 189, 1747; Runtig AS et al (1993) Growth factors 9, 99; Dumont DJ et al (1992) Oncogene 8, 1471.

**This product is for in vitro research use only.*

Related materials available from ADI

Antibodies to Ang-1, Ang-2, Tie-1, Tie-2, Recombinant Mouse and Human VEGFs, Anti-flk-1, Flt-1, and Flt-4 (VEGFRs 1-3)

Western Blot recycling kit (Use the same blot to probe with multiple antibodies Ang-1 and Ang-2, etc.) **recycle blot at room temp in 5-10 min**; No mercaptoethanol or heating required).

TIE26-R-20-100 70322A

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