Anti-human TIE-2

20140701BB

FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	**102-PA111**
Size:	200 µg
Lot. No.:	According to product label
Country of origin:	Germany

Preparation: Produced from sera of rabbits pre-immunized with highly pure (>95%) recombinant human soluble TIE-2 (Thr19-Lys745) produced in insect cells.

Target Background

Synonyms:	Endothelial tyrosine kinase, Tyrosine kinase with Ig and EGF homology domains-2

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-2 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. 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 overexpress Ang2 or to lack Ang1 or TIE-2 display similar angiogenic defects.

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.

Database References Antigen

Protein RefSeq:	NP_000450.2
Uniprot ID:	Q02763
mRNA RefSeq:	NM_000459.3

Product Specifications

Species reactivity	human
Clone/Ab feature	Rabbit IgG
Cross reactivity	Mouse
Host	rabbit
Clonality	polyclonal
Purification	Protein A purified
Immunogen	Recombinant human sTIE-2 (RT Cat# S01-044)
Formulation	lyophilized
Buffer	PBS

Stability: The lyophilized antibody is stable at room temperature for up to 1 month. The reconstituted antibody is stable for at least two weeks at 2-8°C. Frozen aliquots are stable for at least 6 months when stored at -20°C.

Reconstitution: Centrifuge vial prior to opening. Reconstitute in sterile water to a concentration of 0.1-1.0 mg/ml.

AVOID REPEATED FREEZE AND THAW CYCLES!

Applications

Western Blot:	Use at 2-5 µg/ml
FACS:	Use at 1-5 µg/ml

NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!

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Handling/Applications

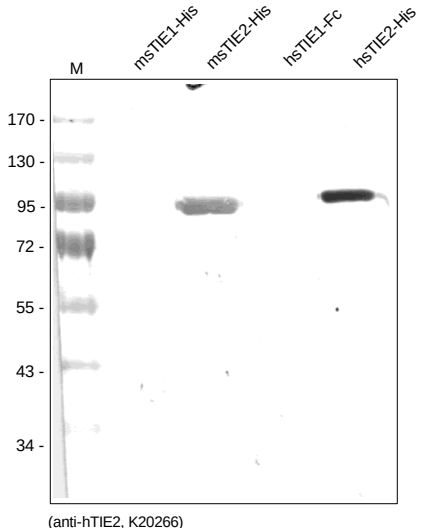

Figure 1. Western analysis of recombinant human and mouse sTIE-1 and sTIE-2 using a polyclonal antibody directed against human recombinant sTIE-2. There is a strong cross reactivity with mouse sTIE-2 but not with human and mouse sTIE-1 visible.

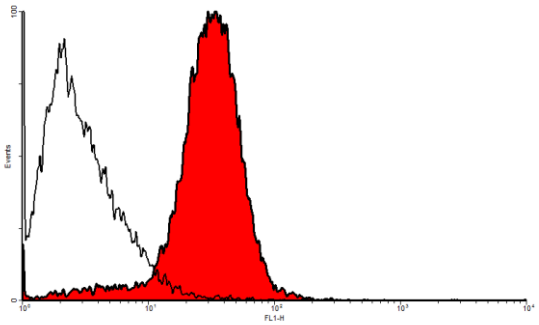

Figure 2. FACS analysis with primary human umbilical vein endothelial cells (HUVEC).

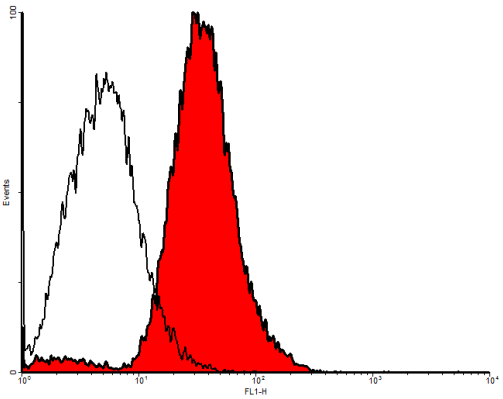

Figure 3. FACS analysis with primary human dermal lymphatic endothelial cells (HDLEC).