

DESCRIPTION

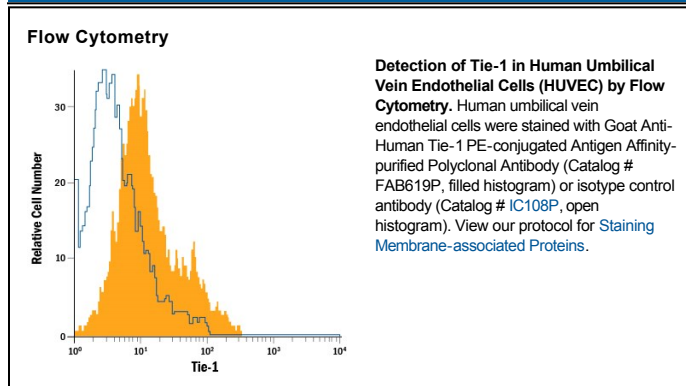
Species Reactivity	Human
Specificity	Detects human Tie-1 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human Tie-2 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Tie-1 Ala22-Gln760 Accession # P35590
Conjugate	Phycoerythrin Excitation Wavelength: 488 nm Emission Wavelength: 565-605 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Flow Cytometry	10 μ L/10 ⁶ cells	See Below

DATA



PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. ● 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Tie-1/Tie (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 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 1138 amino acid (aa) residue precursor protein with a 24 residue putative signal peptide, a 735 residue extracellular domain, a 25 residue transmembrane domain, and a 354 residue cytoplasmic domain. Ligands which bind and activate Tie-1 have not been identified. Based on gene-targeting studies, the *in vivo* functions of Tie-1 have been shown to be related to endothelial cell differentiation and the maintenance of integrity of the endothelium.

References:

1. Partanen, J. and D.J. Dumont (1999) *Curr. Top. Microbiol. Immunol.* **237**:159
2. Sato, T.N. *et al.* (1995) *Nature* **376**:70