

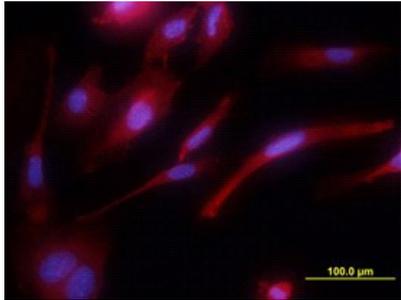
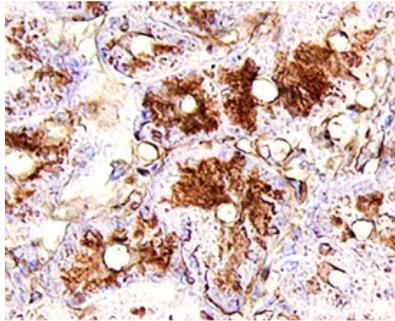
DESCRIPTION	
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Tie-1 in direct ELISAs and Western blots.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 88016
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human Tie-1 Ala22-Gln760 (predicted) Accession # P35590
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

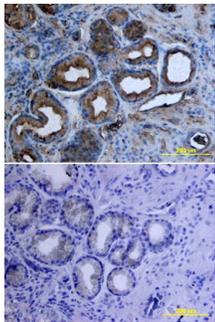
**APPLICATIONS**

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
<b>Western Blot</b>	1 µg/mL	Recombinant Human Tie-1 Fc Chimera (Catalog # 619-TI)
<b>Immunocytochemistry</b>	8-25 µg/mL	See Below
<b>Immunohistochemistry</b>	8-25 µg/mL	See Below

**DATA**

<p><b>Immunocytochemistry</b></p>  <p><b>Tie-1 in HUVEC Human Cells.</b> Tie-1 was detected in immersion fixed HUVEC human umbilical vein endothelial cells using Mouse Anti-Human Tie-1 Monoclonal Antibody (Catalog # MAB619) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). View our protocol for <a href="#">Fluorescent ICC Staining of Cells on Coverslips</a>.</p>	<p><b>Immunohistochemistry</b></p>  <p><b>Tie-1 in Human Gastric Cancer Tissue.</b> Tie-1 was detected in immersion fixed paraffin-embedded sections of human gastric cancer tissue using Mouse Anti-Human Tie-1 Monoclonal Antibody (Catalog # MAB619) at 25 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell &amp; Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific labeling was localized to the cytoplasm of cells in the pyloric glands. View our protocol for <a href="#">Chromogenic IHC Staining of Paraffin-embedded Tissue Sections</a>.</p>
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<p><b>Immunohistochemistry</b></p>  <p><b>Tie-1 in Human Stomach.</b> Tie-1 was detected in immersion fixed paraffin-embedded sections of human stomach array using Mouse Anti-Human Tie-1 Monoclonal Antibody (Catalog # MAB619) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell &amp; Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Lower panel shows a lack of labeling if primary antibodies are omitted and tissue is stained only with secondary antibody followed by incubation with detection reagents. View our protocol for <a href="#">Chromogenic IHC Staining of Paraffin-embedded Tissue Sections</a>.</p>
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**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## 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 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-1 cDNA encodes a 1138 amino acid (aa) precursor with a 24 aa putative signal peptide, a 735 aa extracellular domain and a 354 aa cytoplasmic domain. 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.