

DESCRIPTION

Species Reactivity	Mouse/Rat
Specificity	Detects mouse and rat Tie-2 in direct ELISAs and Western blots. In direct ELISAs, approximately 35% cross-reactivity with recombinant human (rh) Tie-2 is observed and less than 1% cross-reactivity with recombinant zebrafish Tie-2 and rhTie-1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Tie-2 Ala23-Lys744 Accession # CAA47857
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

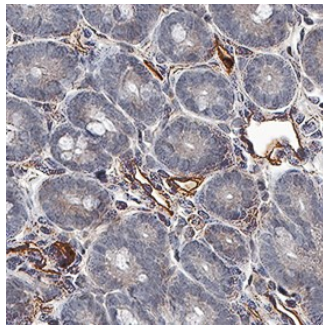
APPLICATIONS

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
Western Blot	0.1 µg/mL	Recombinant Mouse Tie-2 Fc Chimera (Catalog # 762-T2) and Recombinant Rat Tie-2 Fc Chimera (Catalog # 3874-T2)
Immunohistochemistry	1-15 µg/mL	See Below

DATA

Immunohistochemistry



Tie-2 in Mouse Intestine Tissue. Tie-2 was detected in immersion fixed paraffin-embedded sections of mouse intestine tissue using Goat Anti-Mouse/Rat Tie-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF762) at 1 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Goat IgG VisUCyte™ HRP Polymer Antibody (Catalog # [VC004](#)). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # [CTS013](#)). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cell surface on endothelial cells. View our protocol for [IHC Staining with VisUCyte HRP Polymer Detection Reagents](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	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
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.

Two ligands, angiopoietin-1 (Ang-1) and angiopoietin-2 (Ang-2), which bind Tie-2 with high-affinity have been identified. Ang-2 has been reported to act as an antagonist for Ang-1. Mice engineered to overexpress Ang-2 or to lack Ang-1 or Tie-2 display similar angiogenesis defects.

References:

1. Partanen, J. and D.J. Dumont (1999) *Curr. Top. Microbiol. Immunol.* **237**:159.
2. Takakura, N. *et al.* (1998) *Immunity* **9**:677.