Human Tie-2 Antibody

Monoclonal Mouse IgG_{2A} Clone # 83708

Catalog Number: MAB3132

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Tie-2 in ELISAs. In sandwich immunoassays, no cross-reactivity or interference with recombinant human (rh) Tie-1, recombinant mouse Tie-2, recombinant rat Tie-2, recombinant zebrafish Tie-2, rhAng1, 2, or 4 is observed.
Source	Monoclonal Mouse IgG_{2A} Clone # 83708
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Tie−2 Ala23-Lys745 Accession # AAA61139
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 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.*

Human Tie-2 Sandwich Immunoassay		**Reagent**
ELISA Capture	2-8 µg/mL	Human Tie−2 Antibody (Catalog # MAB3132)
ELISA Detection	0.5-2.0 µg/mL	Human Tie−2 Biotinylated Antibody (Catalog # BAM3313)
Standard		Recombinant Human Tie−2 Fc Chimera (Catalog # 313-TI)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 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.** ● 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 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 (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.
3. Procopio, W. *et al.* (1999) J. Biol. Chem. **274**:30196.