

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Angiopoietin-1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) Angiopoietin-2, recombinant mouse Angiopoietin-like 3, rhAngiopoietin-4, or rhAngiopoietin-like 7 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 171718
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Angiopoietin-1 Ser20-Phe498 Accession # Q15389
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide

*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.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

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

Angiopoietin-1 (Ang-1) and Angiopoietin-2 (Ang-2) are two closely related secreted ligands which bind with similar affinity to Tie-2, a receptor tyrosine kinase with immunoglobulin and epidermal growth factor homology domains expressed primarily on endothelial cells and early hematopoietic cells. Tie-2 and angiopoietins have been shown to play critical roles in embryogenic angiogenesis and in maintaining the integrity of the adult vasculature (1). Ang-1 cDNA encodes a 498 amino acid (aa) precursor protein that contains a coiled-coiled domain near the amino-terminus and a fibrinogen-like domain at the C-terminus. Human Ang-1 shares approximately 97% and 60% aa sequence identity with mouse Ang-1 and human Ang-2, respectively (1, 2). Ang-1 activates Tie-2 signaling on endothelial cells to promote chemotaxis, cell survival, cell sprouting, vessel growth and stabilization (1, 3, 4). Ang-2 has alternatively been reported to be an antagonist for Ang-1-induced Tie-2 signaling as well as an agonist for Tie-2 signaling, depending on the cell context (5).

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