Human Angiopoietin-1 Antibody

Monoclonal Mouse IgG_{2B} Clone # 171718

Catalog Number: MAB923

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
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.

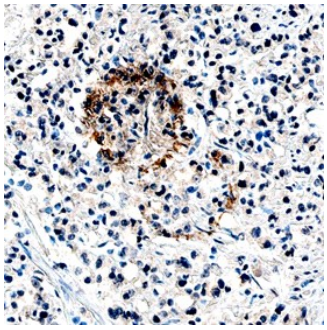
APPLICATIONS

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.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Human Angiopoietin-1 (Catalog # 923-AN)
Immunohistochemistry	8-25 µg/mL	See Below

DATA

Immunohistochemistry



Angiopoietin-1 in Human Prostate Cancer Tissue. Angiopoietin-1 was detected in immersion fixed paraffin-embedded sections of human prostate cancer tissue using Mouse Anti-Human Angiopoietin-1 Monoclonal Antibody (Catalog # MAB923) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in cancer cells. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

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

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).

References:

1. Jones, N. *et al.* (2001) Nat. Rev. Mol. Cell Biol. **2**:257.
2. Davis, S. *et al.* (1996) Cell **87**:1161.
3. Witzenbichler, B. *et al.* (1998) J. Biol. Chem. **273**:18514.
4. Papapetropoulos, A. *et al.* (1999) Lab. Inest. **79**:213.
5. Teichert-Kuliszewska, K. *et al.* (2001) Cardiovasc. Res. **49**:659.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956