Human Angiopoietin-1 Antibody
Monoclonal Mouse IgG2B 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 IgG2B 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) 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.

<table>
<thead>
<tr>
<th>Application</th>
<th>Recommended Concentration</th>
<th>Sample</th>
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<tbody>
<tr>
<td>Western Blot</td>
<td>1 μg/mL</td>
<td>Recombinant Human Angiopoietin-1 (Catalog # 923-AN)</td>
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<tr>
<td>Immunohistochemistry</td>
<td>8-25 μg/mL</td>
<td>See Below</td>
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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 embryonic 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: