Human/Mouse Angiopoietin-1 Antibody
Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF923

DESCRIPTION
Species Reactivity  Human/Mouse
Specificity  Detects human and mouse Angiopoietin-1 in direct ELISAs and Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant human (rh) Angiopoietin-2 and rhAngiopoietin-4 is observed.
Source  Polyclonal Goat IgG
Purification  Antigen Affinity-purified
Immunogen  Mouse myeloma cell line NS0-derived recombinant human Angiopoietin-1 Ser20-Phe498
Accession #  Q5HYA0
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.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Recommended Concentration</th>
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<tbody>
<tr>
<td>Western Blot</td>
<td>0.1 μg/mL</td>
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<tr>
<td>Immunohistochemistry</td>
<td>5-15 μg/mL</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 15 μg/mL Goat Anti-Human/Mouse Angiopoietin-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF923) overnight at 4 °C. Tissue was stained with the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

Immunohistochemistry
Angiopoietin-1 in Human Prostate. Angiopoietin-1 was detected in immersion fixed paraffin-embedded sections of human prostate array using Goat Anti-Human/Mouse Angiopoietin-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF923) at 5 μg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Lower panel shows a lack of labeling if primary antibodies are omitted and tissue is stained only with secondary antibody followed by incubation with detection reagents. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

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.
  - 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.
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) residue 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% amino acid 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: