

## DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Mouse                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects mouse Angiopoietin-1 in ELISA and Western Blot. In ELISA, no cross-reactivity with recombinant mouse Angiopoietin-2 is detected.                                                                                                                                    |
| <b>Source</b>             | Monoclonal Rat IgG <sub>1</sub> Clone # 892732                                                                                                                                                                                                                              |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | Chinese hamster ovary cell line CHO-derived recombinant mouse Angiopoietin-1<br>Ser20-Phe498<br>Accession # O08538                                                                                                                                                          |
| <b>Conjugate</b>          | Alexa Fluor 647<br>Excitation Wavelength: 650 nm<br>Emission Wavelength: 668 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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.

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | 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) 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).

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