

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Angiotensin-1 in Western blots. In Western blots, this antibody does not cross-react with recombinant human (rh) Ang-2, rhAng-4, rmANGPTL3, or rhANGPTL7.
Source	Monoclonal Mouse IgG _{2B} Clone # 171733
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Angiotensin-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 Angiotensin-1 (Catalog # 923-AN)
Human Angiotensin-1 Sandwich Immunoassay		Reagent
ELISA Capture	2-8 µg/mL	Human Angiotensin-1 Antibody (Catalog # MAB9231)
ELISA Detection	0.1-0.4 µg/mL	Human Angiotensin-1 Biotinylated Antibody (Catalog # BAF923)
Standard		Recombinant Human Angiotensin-1 (Catalog # 923-AN)

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. <ul style="list-style-type: none"> ● 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

Angiotensin-1 (Ang-1) and Angiotensin-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 angiotensins 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% 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. Witzensbichler, B. *et al.* (1998) *J. Biol. Chem.* 273:18514.
4. Papapetropoulos, A. *et al.* (1999) *Lab. Invest.* 79:213.
5. Teichert-Kuliszewska, K. *et al.* (2001) *Cardiovasc. Res.* 49:659.