Advanced Targeting Systems

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**Alexa488-labeled Antibody to Angiotensin II receptor (AT-1R), affinity-purified**
RABBIT POLYCLONAL

**Catalog Number:** AB-N27AP-FLA
**Quantity:** 50 micrograms
**Format:** 50% PBS (0.14 M Sodium Chloride; 0.003 M Potassium Chloride; 0.002 M Potassium Phosphate; 0.01 M Sodium Phosphate; pH 7.4), 50% glycerol; no preservative.
**Host:** Rabbit
**Immunogen:** Synthetic peptide corresponding to a cytoplasmic region of the receptor conjugated to keyhole limpet hemocyanin (KLH)

**Background:** The Angiotensin II type 1 receptor (AT-1R) is the primary effector of Angiotensin II, a key regulator of blood pressure and fluid homeostasis. It is involved in pathogenesis of several cardiovascular diseases such as hypertension, cardiac hypertrophy and congestive heart failure. Angiotensin II interacts with two types of G-protein coupled membrane receptors, AT-1R (type 1) and AT-2R (type 2). AT-1 has three isoforms in rat: AT-1A (359 aa), AT-1B (359 aa), and AT-1C (177 aa). Rat AT-1R's are predicted to contain seven transmembrane domains. The N-terminus is predicted to be extracellular, while the C-terminus is predicted to be cytoplasmic. AT-1R's are expressed in the liver, kidney, aorta, lung, uterus, ovary, spleen, heart, adrenal and vascular smooth muscle.

**Specificity & Preparation:** This antibody recognizes isoforms AT-1A and AT-1B of the Angiotensin II type 1 receptor (AT-1R) in rat. The antisera was generated in rabbits by immunization with a synthetic peptide corresponding to a cytoplasmic region of the receptor conjugated to keyhole limpet hemocyanin (KLH). Antisera was then affinity-purified by passage through two affinity columns, one cross-linked to AT-1A and the other with AT-1B. It has been conjugated to the fluorescent dye Alexa488.

**Usage:** Applications include immunohistochemistry (immunoperoxidase electron microscopy, 1:500)[1].

**Storage:** Gently spin down material 5-10 seconds in a microfuge before use. The material can be handled safely using normal laboratory precautions. Store the antibody at -20°C for up to one year.

*Scan to view all product references.*

**Selected References:**

1. Premer C, Lamondin C, Mitzey A, Speth RC, Brownfield MS. (2013) Immunohistochemical Localization of AT1a, AT1b, and AT2 Angiotensin II Receptor Subtypes in the Rat Adrenal, Pituitary, and Brain with a Perspective Commentary. *Int J Hypertens* 2013:175428.
2. Wang G, Anrather J, Huang J, Speth RC, Pickel VM, Iadecola C (2004) NADPH oxidase contributes to angiotensin II signaling in the nucleus tractus solitarius. *J Neurosci* 24(24):5516 -5524.

*To view protocol(s) for this and other products please visit: www.ATSbio.com/library/protocols*