

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

Catalog Number: FL-N27AP
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 and 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 and Storage:

Applications include immunohistochemistry (immunoperoxidase electron microscopy, 1:500)¹. Gently spin down material before use; 5-10 seconds in a microfuge should be adequate. The material can be handled safely using normal laboratory precautions. See Lot Number for lot-specific storage instructions.

References:

1. Premier 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.

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