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Product datasheet for TA328707

Agtr2 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide DNLNATGTNESAFNC, corresponding to amino acid residues 21-35 of rat AT2 Receptor. Extracellular, N-terminal domain.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.025% NaN3.
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	angiotensin II receptor, type 2
Database Link:	NP_036626 Entrez Gene 11609 MouseEntrez Gene 24182 Rat P35351

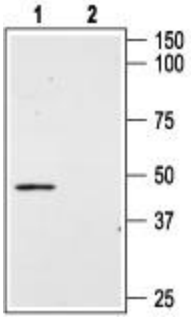
View online »

Background: Angiotensin II receptor type 2 or AT2 is one of the receptors that bind the octapeptide hormone Angiotensin II (Ang II). Ang II is the peptide hormone that generates most of the known effects of the renin-angiotensin system (RAS). Ang II is generated from the angiotensinogen protein by the actions of renin, angiotensin converting enzyme (ACE) and other peptidases. Ang II has a central role in cardiovascular homeostasis by regulating vasoconstriction, renal Na+ and water readsorption. In addition, Ang II induces cell growth and proliferation and has pro-inflammatory effects. Most of the physiological actions of Ang II are mediated by AT1 a member of the 7-transmembrane domain, G protein-coupled receptor (GPCR) superfamily. AT2 is also a GPCR, and is largely believed to have counter-regulatory roles to the ones exerted through the AT1 receptor. Hence, binding of Ang II to the AT2 receptor will result in growth arrest and apoptosis, vasodilatation and hypotension. Although the AT2 receptor is structurally a member of the GPCR superfamily, the signaling mechanisms elicited following AT2 receptor activation are not fully clarified. Recent evidence indicates that the AT2 receptor signals through the Gia2 and the Gia3 proteins and through the activation of phosphotyrosine phosphatases such as SHP-1. AT2 receptor distribution is more restricted than that of the AT1 receptor. The highest expression levels of AT2 have been found in the fetus, which is followed by a marked decrease shortly after birth. Nevertheless, significant AT2 receptor expression can be detected in the heart, kidney, vascular endothelial cells and brain, among others.

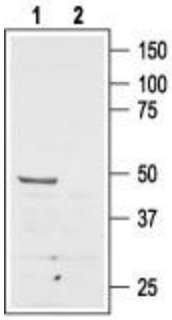
Synonyms: AT2; ATGR2; MRX88

Note: This antibody was tested in live cell imaging. Please see IF/ICC data for detail.

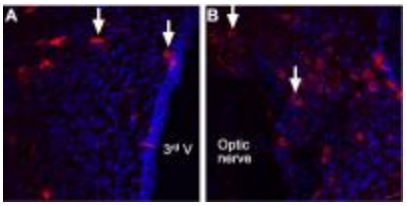
Product images:



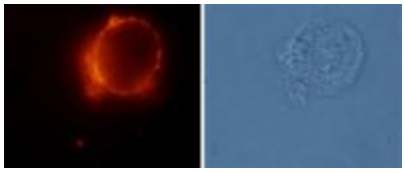
Western blot analysis of mouse MS1 endothelial cells: 1. Anti-Angiotensin II Receptor Type-2 (extracellular) antibody, (1:400). 2. Anti-Angiotensin II Receptor Type-2 (extracellular) antibody, preincubated with the control peptide antigen.



Western blot analysis of rat brain membranes: 1. Anti-Angiotensin II Receptor Type-2 (extracellular) antibody, (1:500). 2. Anti-Angiotensin II Receptor Type-2 (extracellular) antibody, preincubated with the control peptide antigen.



Expression of Angiotensin II Receptor Type-2 in rat brain. Immunohistochemical staining of rat brain sections using Anti-Angiotensin Receptor Type-2 (extracellular) antibody. A. AT2 receptor expressing neurons (red) are scattered in the paraventricular nucleus of the hypothalamus (arrows), in the vicinity of the 3rd ventricle (3rd V). B. AT2 receptor expressing neurons in the supraoptic nucleus (arrows), adjacent to the optic nerve. Nissl is used as the counterstain (blue).



Expression of Angiotensin II-Receptor Type-2 in rat GH3 pituitary cells. Immunocytochemical staining of live intact rat GH3 pituitary cells using Anti-Angiotensin II Receptor Type-2 (extracellular) antibody, (1:100), followed by goat anti-rabbit-AlexaFluor-555 secondary antibody.