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AGTR1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP10119b

Product Information

Application	WB, IHC-P, FC, IF, E
Primary Accession	P30556
Other Accession	P34976, P30555, NP_114438.1, NP_114038.1
Reactivity	Human, Rat, Mouse
Predicted	Pig, Rabbit, Bovine, Canine, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB19701
Calculated MW	41061
Antigen Region	211-240

Additional Information

Gene ID	185
Other Names	Type-1 angiotensin II receptor, AT1AR, AT1BR, Angiotensin II type-1 receptor, AT1, AGTR1, AGTR1A, AGTR1B, AT2R1, AT2R1B
Target/Specificity	This AGTR1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 211-240 amino acids from the Central region of human AGTR1.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 IF~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	AGTR1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	AGTR1 (HGNC:336)
Function	Receptor for angiotensin II, a vasoconstricting peptide, which acts as a key

regulator of blood pressure and sodium retention by the kidney (PubMed:15611106, PubMed:1567413, PubMed:25913193, PubMed:26420482, PubMed:30639100, PubMed:32079768, PubMed:8987975). The activated receptor in turn couples to G-alpha proteins G(q) (GNAQ, GNA11, GNA14 or GNA15) and thus activates phospholipase C and increases the cytosolic Ca(2+) concentrations, which in turn triggers cellular responses such as stimulation of protein kinase C (PubMed:15611106).

Cellular Location Cell membrane; Multi-pass membrane protein

Tissue Location Liver, lung, adrenal and adrenocortical adenomas.

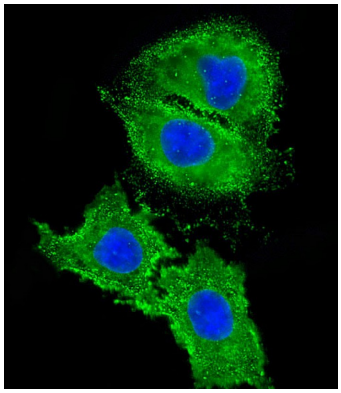
Background

Angiotensin II is a potent vasopressor hormone and a primary regulator of aldosterone secretion. It is an important effector controlling blood pressure and volume in the cardiovascular system. It acts through at least two types of receptors. This gene encodes the type 1 receptor which is thought to mediate the major cardiovascular effects of angiotensin II. This gene may play a role in the generation of reperfusion arrhythmias following restoration of blood flow to ischemic or infarcted myocardium. It was previously thought that a related gene, denoted as AGTR1B, existed; however, it is now believed that there is only one type 1 receptor gene in humans. At least five transcript variants have been described for this gene. Additional variants have been described but their full-length nature has not been determined. The entire coding sequence is contained in the terminal exon and is present in all transcript variants. [provided by RefSeq].

References

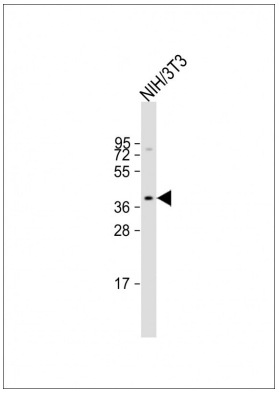
Xu, M., et al. Atherosclerosis 213(1):191-199(2010)
Niu, W., et al. Hypertens. Res. 33(11):1137-1143(2010)
Procopciuc, L.M., et al. Eur. J. Intern. Med. 21(5):414-418(2010)
Romero, R., et al. Am. J. Obstet. Gynecol. 203 (4), 361 (2010) :
Schuur, M., et al. J. Neurol. Neurosurg. Psychiatr. (2010) In press :

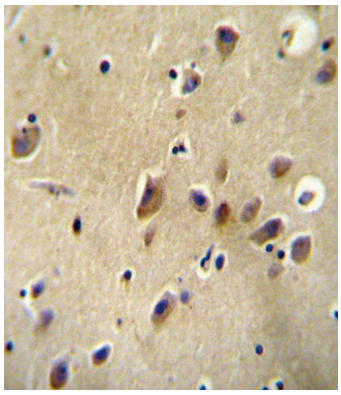
Images



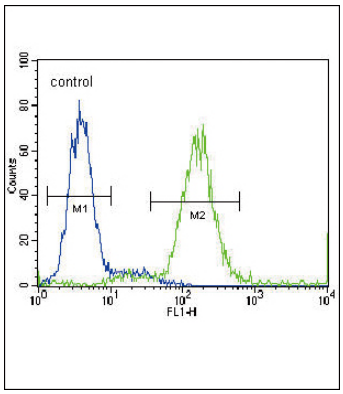
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HepG2 (human liver hepatocellular carcinoma cell line) cells labeling AGTR1 with AP10119B at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-rabbit IgG (NK179883) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing membrane and cytoplasm staining on HepG2 cell line. The nuclear counter stain is DAPI (blue).

Anti-AGTR1 Antibody (Center) at 1:2000 dilution + NIH/3T3 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 41 kDa Blocking/Dilution buffer: 5% NFDM/TBST.





AGTR1 Antibody (Center) (Cat. #AP10119b) immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the AGTR1 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.



AGTR1 Antibody (Center) (Cat. #AP10119b) flow cytometric analysis of HepG2 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.