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AGTR1 Antibody

Catalog # ASC10977

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	P30556
Other Accession	EAW78909, 119599315
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	41061
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	AGTR1 antibody can be used for detection of AGTR1 by Western blot at 1 - 2 g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 g/mL. For immunofluorescence start at 20 g/mL.

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	AGTR1;
Reconstitution & Storage	AGTR1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	AGTR1 Antibody 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.

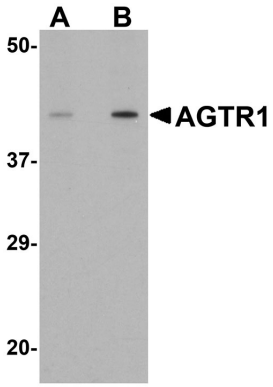
Background

AGTR1 Antibody: Angiotensin II is a potent vasopressor hormone and a primary regulator of aldosterone secretion that acts through at least two types of receptors, AGTR1 and AGTR2. It is an important effector controlling blood pressure and volume in the cardiovascular system and plays a major role in the development of the mammalian kidney and urinary tract. AGTR1, the type 1 receptor, is thought to mediate the major cardiovascular effects of angiotensin II and may play a role in the generation of reperfusion arrhythmias following restoration of blood flow to ischemic or infarcted myocardium. AGTR1 has recently been found to regulate the differentiation of bone marrow-derived monocyte lineage progenitors from hematopoietic stem cells, indicating the diversity of the roles of AGTR1.

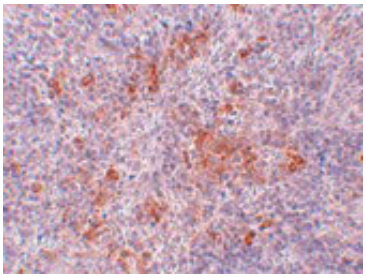
References

Mottl AK, Shoham DA, and North KE. Angiotensin II type 1 receptor polymorphisms and susceptibility to hypertension: A HuGE review. Gen. in Med.2008; 10:560-574.
Miyazaki Y and Ichikawa I. Role of the angiotensin receptor in the development of the mammalian kidney and urinary tract. Comp. Biochem. Physiol. A Mol. Integr. Physiol.2001; 128:89-97.
Tsubakimoto Y, Yamada H, Yokoi H, et al. Bone marrow angiotensin AT1 receptor regulates differentiation of monocyte lineage progenitors from hematopoietic stem cells. Arterioscler. Thromb. Vasc. Biol.2009; 29:1529-36.

Images

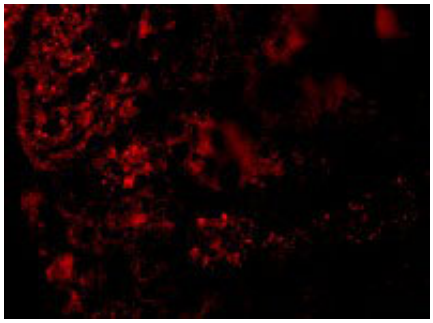


Western blot analysis of AGTR1 in mouse kidney tissue lysate with AGTR1 antibody at (A) 1 and (B) 2 µg/mL.



Immunohistochemistry of AGTR1 in mouse kidney tissue with AGTR1 antibody at 2.5 µg/mL.

Immunofluorescence of AGTR1 in Mouse Kidney cells with AGTR1 antibody at 20 µg/mL.



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