

For Research Use Only

# Renin receptor, ATP6AP2 Polyclonal antibody



Catalog Number: 10926-1-AP

5 Publications

## Basic Information

<b>Catalog Number:</b> 10926-1-AP	<b>GenBank Accession Number:</b> BC010395	<b>Purification Method:</b> Antigen affinity purification
<b>Size:</b> 150ul , Concentration: 700 µg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 10159	<b>Recommended Dilutions:</b> WB 1:500-1:2000 IHC 1:20-1:200
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> O75787	
<b>Isotype:</b> IgG	<b>Full Name:</b> ATPase, H <sup>+</sup> transporting, lysosomal accessory protein 2	
<b>Immunogen Catalog Number:</b> AG1360	<b>Calculated MW:</b> 39 kDa	
	<b>Observed MW:</b> 28 kDa	

## Applications

### Tested Applications:

IHC, WB, ELISA

### Cited Applications:

IHC, WB

### Species Specificity:

human, mouse

### Cited Species:

human, mouse

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

### Positive Controls:

WB : mouse brain tissue, human retinal pigment epithelium tissue, rat brain tissue

IHC : human heart tissue,

## Background Information

ATP6AP2, also named as ATP6IP2, CAPER, ELDF10, N14F, ATP6M8-9, Renin receptor, and prorenin receptor, is believed to potentiate the renin-angiotensin system (RAS), conferring to prorenin, a likely pathological role at the tissue level. The PRR has been identified in the microvascular endothelial cells of the retina, which seems to be involved in pathological neovascularization processes. The present study demonstrates for the first time that the PRR is expressed in human ATP6AP2 and suggests a molecular mechanism by which hypertension may exacerbate the pathology of dry AMD. ATP6AP2 functions as a renin and prorenin cellular receptor. It may mediate renin-dependent cellular responses by activating ERK1 and ERK2. By increasing the catalytic efficiency of renin in AGT/angiotensinogen conversion to angiotensin I, it may also play a role in the renin-angiotensin system (RAS). Defects in ATP6AP2 are a cause of mental retardation X-linked with epilepsy (MRXE). The full length of ATP6AP2 protein is 39 kDa, and the band with an apparent molecular weight of 28 kDa is the soluble form. (PMID:19580809; PMID:28215051; PMID:34534267; PMID: 29127204)

## Notable Publications

Author	Pubmed ID	Journal	Application
Kaushal Asrani	31527310	J Clin Invest	WB
Xiao-Mei Kong	26722475	Int J Clin Exp Pathol	WB
Sakurako Mishima	37167782	Placenta	WB,IHC

## Storage

### Storage:

Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

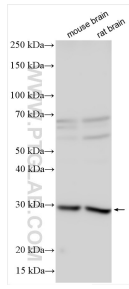
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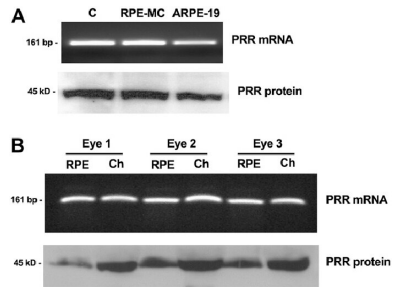
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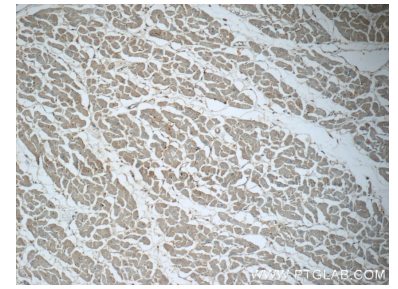
## Selected Validation Data



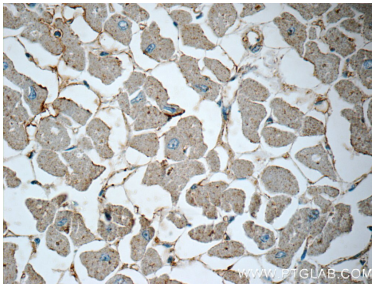
Various lysates were subjected to SDS PAGE followed by western blot with 10926-1-AP (Renin receptor, ATP6AP2 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



WB result from Oscar Alcazar, et al, (Pro)renin receptor is expressed in human retinal pigment epithelium and participates in extracellular matrix remodeling, *Exp Eye Res.* 89(5) 638-47 (2009) (PMID:19580809). Eye 45kd.



Immunohistochemical analysis of paraffin-embedded human heart tissue slide using 10926-1-AP (Renin receptor, ATP6AP2 Antibody) at dilution of 1:50 (under 10x lens).



Immunohistochemical analysis of paraffin-embedded human heart tissue slide using 10926-1-AP (Renin receptor, ATP6AP2 Antibody) at dilution of 1:50 (under 40x lens).