For Research Use Only

Renin receptor, ATP6AP2 Polyclonal antibody

Catalog Number:10926-1-AP 6 Publications

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Basic Information

Catalog Number:
10926-1-AP

Size:
150ul , Concentration: 700 ug/ml by Nanodrop;

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG1360

GenBank Accession Number:
BC010395

GeneID (NCBI):
10159

UNIPROT ID:
O75787

Full Name:
ATPase, H+ transporting, lysosomal accessory protein 2

Calculated MW:
39 kDa

Observed MW:
28 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:500-1:2000
IHC 1:250-1:1000
IF/ICC 1:200-1:800

Applications

Tested Applications:
WB, IHC, IF/ICC, ELISA

Cited Applications:
WB, IHC

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 : mouse cerebellum tissue, human heart tissue, human placenta tissue

IF/ICC : HeLa cells,

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
Chih Hung Lo	38830624	ACS Nano	WB

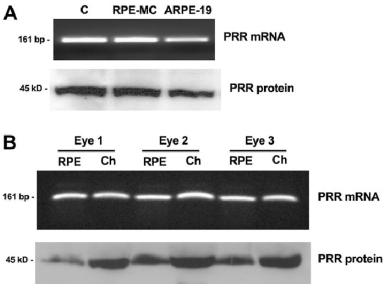
Storage

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

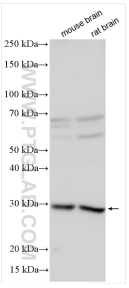
***** 20ul sizes contain 0.1% BSA**

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

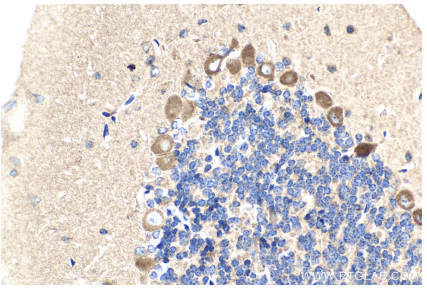
Selected Validation Data



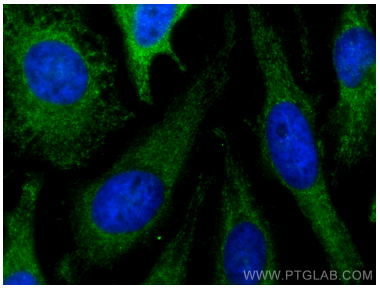
WB result from Oscar Alcazar, et al, (Pro)renin receptor is expressed in human retinal pigment epithelium and participates in extracellular matrix remodeling, Exp Eye Res. 89(5) 638-47 (2009) (PMID:19580809). Eye 45kd.



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.



Immunohistochemical analysis of paraffin-embedded mouse cerebellum tissue slide using 10926-1-AP (Renin receptor, ATP6AP2 antibody) at dilution of 1:500 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using Renin receptor, ATP6AP2 antibody (10926-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2).