

For Research Use Only

Renin Polyclonal antibody

Catalog Number: 14291-1-AP **20 Publications**



Basic Information

Catalog Number: 14291-1-AP	GenBank Accession Number: BC047752	Purification Method: Antigen affinity purification
Size: 150ul , Concentration: 300 µg/ml by Nanodrop;	GeneID (NCBI): 5972	Recommended Dilutions: WB 1:500-1:2000 IHC 1:400-1:1600 IF 1:20-1:200
Source: Rabbit	UNIPROT ID: P00797	
Isotype: IgG	Full Name: renin	
Immunogen Catalog Number: AG5612	Calculated MW: 45 kDa	
	Observed MW: 45 kDa	

Applications

Tested Applications: IF, IHC, WB, ELISA	Positive Controls: WB : K-562 cells, IHC : human kidney tissue, human gliomas tissue, mouse kidney tissue IF : HepG2 cells,
Cited Applications: IF, IHC, WB	
Species Specificity: human, mouse, rat	
Cited Species: human, rat, mouse	

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

Background Information

REN(Renin) is also named as angiotensinogenase and belongs to the peptidase A1 family. It is a highly specific endopeptidase, whose only known function is to generate angiotensin I from angiotensinogen in the plasma, initiating a cascade of reactions that produce an elevation of blood pressure and increased sodium retention by the kidney. Human prorenin and renin are synthesized in juxtaglomerular cells and it locates in the juxtaglomerular cells and afferent arteriole as cytoplasmic granules (PMID:19664745, 9453303). REN has 2 isoforms produced by alternative splicing with the molecular weight of 45-47kDa. The mature REN can be detected as 38-42 kDa due to the cleavage of signal peptide and propeptide, and also detected as 55-60 kDa with variable degrees of glycosylation (PMID: 20966072, 15226276). Defects in REN are a cause of renal tubular dysgenesis (RTD) and familial juvenile hyperuricemic nephropathy type 2 (HNF12).

Notable Publications

Author	Pubmed ID	Journal	Application
Eriko Negishi	30256128	Am J Physiol Renal Physiol	WB
Hadrien-Gaël Boyer	29084882	Hypertension	IHC
Brasilina Caroccia	29066763	Sci Rep	IHC

Storage

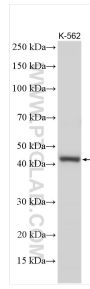
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

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

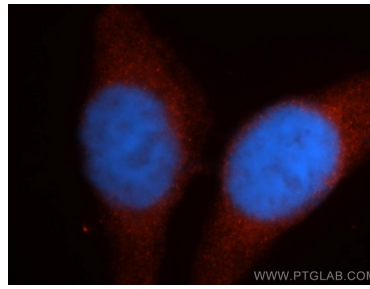
For technical support and original validation data for this product please contact:
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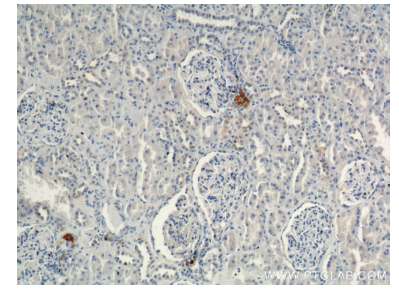
Selected Validation Data



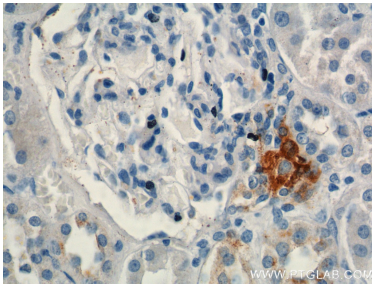
Various lysates were subjected to SDS PAGE followed by western blot with 14291-1-AP (Renin antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of HepG2 cells, using REN antibody 14291-1-AP at 1:50 dilution and Rhodamine-labeled goat anti-rabbit IgG (red). Blue pseudocolor = DAPI (fluorescent DNA dye).



Immunohistochemical analysis of paraffin-embedded human kidney tissue slide using 14291-1-AP (Renin antibody at dilution of 1:800 (under 10x lens).



Immunohistochemical analysis of paraffin-embedded human kidney tissue slide using 14291-1-AP (Renin antibody at dilution of 1:800 (under 40x lens).