

# ATP6V0A4 Recombinant monoclonal antibody

Catalog Number: 86321-1-RR

## Basic Information

<b>Catalog Number:</b> 86321-1-RR	<b>GenBank Accession Number:</b> BC109305	<b>Purification Method:</b> Protein A purification
<b>Concentration:</b> 1000 µg/ml	<b>GeneID (NCBI):</b> 50617	<b>CloneNo.:</b> 250861E8
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> Q9HBG4	<b>Recommended Dilutions:</b> WB: 1:5000-1:50000 IHC: 1:10000-1:40000
<b>Isotype:</b> IgG	<b>Full Name:</b> ATPase, H <sup>+</sup> transporting, lysosomal V0 subunit a4	
<b>Immunogen Catalog Number:</b> AG16095	<b>Calculated MW:</b> 840 aa, 96 kDa	
	<b>Observed MW:</b> 85 kDa	

## Applications

### Tested Applications:

WB, IHC, ELISA

### Species Specificity:

human, mouse, rat

**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 kidney tissue, rat kidney tissue

IHC : human kidney tissue, mouse kidney tissue

## Background Information

The ATP6V0A4 is a component of vacuolar-H<sup>+</sup>ATPase (V-ATPase) which is a multi-subunit enzyme that couples ATP hydrolysis to proton pumping across membranes. The V-ATPases are comprised of two major parts, the cytosolic V1 domain involved in ATP-binding and subsequent hydrolysis, and the membrane-associated V0 domain responsible for proton translocation. The V0 domain is composed of five subunits: a, c, c', c" and d. The 'a' subunit of V0 domain has four isoforms : a1-a4. It has been found that mutations in ATP6V0A4(a4) are associated with distal renal tubular acidosis(dRTA) combined in some cases with progressive hearing loss leading to sensorineural deafness.

## Storage

### Storage:

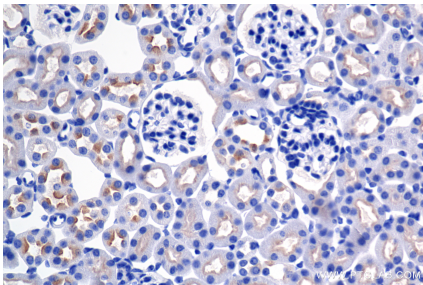
Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

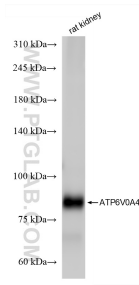
PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

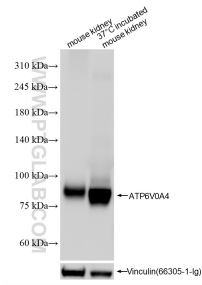
Selected Validation Data



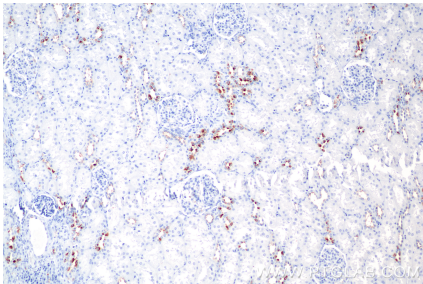
Immunohistochemical analysis of paraffin-embedded mouse kidney tissue slide using 86321-1-RR (ATP6VOA4 antibody) at dilution of 1:80000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



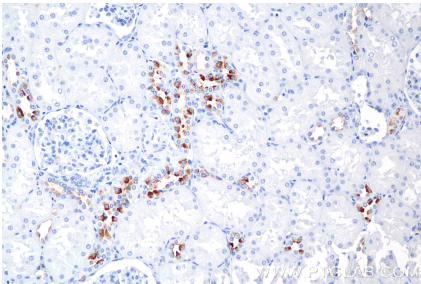
rat kidney tissue were subjected to SDS PAGE followed by western blot with 86321-1-RR (ATP6VOA4 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



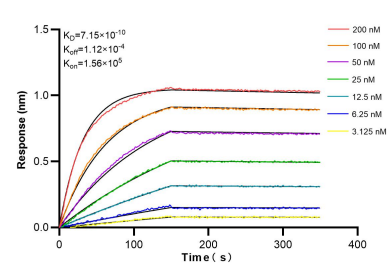
Various lysates were subjected to SDS PAGE followed by western blot with 86321-1-RR (ATP6VOA4 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human kidney tissue slide using 86321-1-RR (ATP6VOA4 antibody) at dilution of 1:20000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human kidney tissue slide using 86321-1-RR (ATP6VOA4 antibody) at dilution of 1:20000 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Bi-layer interferometry (BLI) kinetic assays of 86321-1-RR against Human ATP6VOA4 were performed. The affinity constant is 0.715 nM.