

# ATP1A2 Recombinant antibody

Catalog Number: 84999-4-RR

## Basic Information

**Catalog Number:**

84999-4-RR

**Concentration:**

1000 ug/ml

**Source:**

Rabbit

**Isotype:**

IgG

**Immunogen Catalog Number:**

AG10489

**GenBank Accession Number:**

BC052271

**GeneID (NCBI):**

477

**UNIPROT ID:**

P50993

**Full Name:**

ATPase, Na<sup>+</sup>/K<sup>+</sup> transporting, alpha 2  
(+) polypeptide

**Calculated MW:**

1020 aa, 112 kDa

**Observed MW:**

97-100 kDa

**Purification Method:**

Protein A purification

**CloneNo.:**

242414G12

**Recommended Dilutions:**

WB: 1:5000-1:50000

IHC: 1:200-1:800

## 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 :** 37°C incubated mouse brain tissue, 37°C  
incubated rat brain tissue

**IHC :** mouse heart tissue,

## Background Information

ATP1A2 (Na<sup>+</sup>/K<sup>+</sup>-ATPase α-2 subunit) is the catalytic component of the active enzyme Na<sup>+</sup>/K<sup>+</sup>-ATPase, which catalyzes the hydrolysis of ATP coupled with the exchange of sodium and potassium ions across the plasma membrane. The Na<sup>+</sup>/K<sup>+</sup>-ATPase is composed of a larger catalytic α-subunit (~110 kDa) and a small β-subunit (~55 kDa). The α-subunit has four isoforms identified to date: α-1, α-2, α-3 and α-4. The α-1 isoform is expressed ubiquitously but the α-2 isoform is present largely in the skeletal muscle, heart and vascular smooth muscle. The α-3 isoform is found almost exclusively in neurons and ovaries. The α-4 isoform is expressed in sperm. For optimal WB detection with ATP1A2, we do not recommend boiling the sample after lysis.

## Storage

**Storage:**

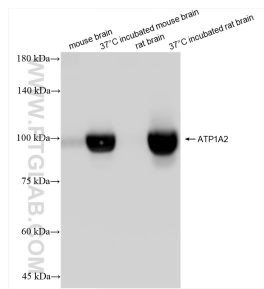
Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

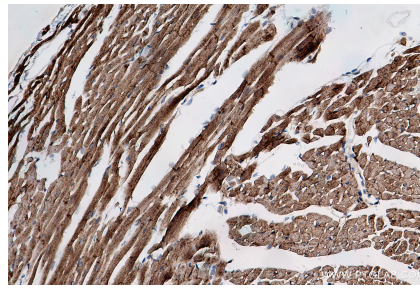
PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

## Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 84999-4-RR (ATP1A2 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded mouse heart tissue slide using 84999-4-RR (ATP1A2 antibody) at dilution of 1:400 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).