For Research Use Only

ATP1A2 Recombinant antibody, PBS Only

Catalog Number:84999-4-PBS



Purification Method:

Protein A purification

CloneNo.:

242414G12

Basic Information

Catalog Number: GenBank Accession Number: 84999-4-PBS BC052271

Concentration: GeneID (NCBI): 1 mg/ml 477

Source: UNIPROT ID: Rabbit P50993
Isotype: Full Name:

IgG ATPase, Na+/K+ transporting, alpha 2
(+) polypeptide

Immunogen Catalog Number: (+) polypeptide

AG10489 Calculated MW:
1020 aa, 112 kDa

Observed MW: 97-100 kDa

Applications

Tested Applications: WB, IHC, Indirect ELISA Species Specificity: human, mouse, rat

Background Information

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

Storage

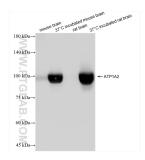
Storage:

Store at -80°C.

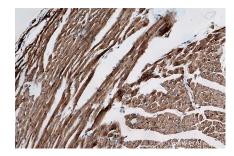
The product is shipped with ice packs. Upon receipt, store it immediately at -80°C

Storage Buffer PBS Only

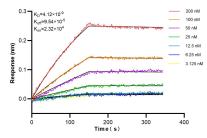
Selected Validation Data



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. This data was developed using the same antibody clone with 84999-4-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffinembedded 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). This data was developed using the same antibody clone with 84999-4-PBS in a different storage buffer formulation.



Biolayer interferometry (BLL) kinetic assays of 84999-4-RR against Human ATP1A2 were performed. The affinity constant is 4.12 nM.