

Rat Atp1a1 Antibody (N-term S23)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20549a

Specification

Rat Atp1a1 Antibody (N-term S23) - Product Information

Application	WB,E
Primary Accession	P06685
Reactivity	Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	113054

Rat Atp1a1 Antibody (N-term S23) - Additional Information

Gene ID 24211

Other Names

Sodium/potassium-transporting ATPase subunit alpha-1, Na(+)/K(+) ATPase alpha-1 subunit, Sodium pump subunit alpha-1, Atp1a1

Target/Specificity

This Rat Atp1a1 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from Rat Atp1a1.

Dilution

WB~~1:1000

E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Rat Atp1a1 Antibody (N-term S23) is for research use only and not for use in diagnostic or therapeutic procedures.

Rat Atp1a1 Antibody (N-term S23) - Protein Information

Name Atp1a1

Function This is the catalytic component of the active enzyme, which catalyzes the hydrolysis of ATP coupled with the exchange of sodium and potassium ions across the plasma membrane. This

action creates the electrochemical gradient of sodium and potassium ions, providing the energy for active transport of various nutrients (PubMed:[30388404](#)). Could also be part of an osmosensory signaling pathway that senses body-fluid sodium levels and controls salt intake behavior as well as voluntary water intake to regulate sodium homeostasis (By similarity).

Cellular Location

Cell membrane {ECO:0000250|UniProtKB:Q8VDN2}; Multi-pass membrane protein. Basolateral cell membrane; Multi-pass membrane protein. Cell membrane, sarcolemma {ECO:0000250|UniProtKB:P05023}; Multi-pass membrane protein. Cell projection, axon Melanosome {ECO:0000250|UniProtKB:P05023}

Tissue Location

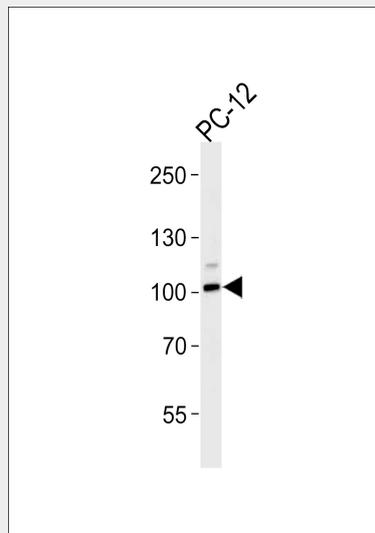
Expressed in the central nervous system, in most motor and sensory axons of the ventral and dorsal roots, as well as in the large motor neurons of the ventral horn (at protein level)

Rat Atp1a1 Antibody (N-term S23) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Rat Atp1a1 Antibody (N-term S23) - Images



Western blot analysis of lysate from PC-12 cell line, using Rat Atp1a1 Antibody (S23) (Cat. #AP20549a). AP20549a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L (HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35ug per lane.

Rat Atp1a1 Antibody (N-term S23) - Background

This is the catalytic component of the active enzyme, which catalyzes the hydrolysis of ATP

coupled with the exchange of sodium and potassium ions across the plasma membrane. This action creates the electrochemical gradient of sodium and potassium ions, providing the energy for active transport of various nutrients.

Rat Atp1a1 Antibody (N-term S23) - References

- Shull G.E., et al. *Biochemistry* 25:8125-8132(1986).
Hara Y., et al. *J. Biochem.* 102:43-58(1987).
Herrera V.L.M., et al. *J. Cell Biol.* 105:1855-1865(1987).
Lubec G., et al. Submitted (JUL-2007) to UniProtKB.
Schneider J.W., et al. *Proc. Natl. Acad. Sci. U.S.A.* 82:6357-6361(1985).