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Product datasheet for AP20203PU-S

Sodium Potassium ATPase (ATP1A1) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	**Western blot:** 1/500-1/1000. **Immunofluorescence**: 1/100-1/500. **Immunohistochemistry on Paraffin Sections:** 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody antibody detects endogenous levels of Na(+)/K(+)-ATPase alpha1 protein.
Formulation:	Phosphate buffered saline (PBS), pH~7.2 containing 0.05% Sodium Azide as preservative. State: Aff - Purified State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE).
Concentration:	1.0 mg/ml
Purification:	Affinity Chromatography using epitope-specific immunogen.
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 112 kDa
Gene Name:	ATPase Na+/K+ transporting subunit alpha 1
Database Link:	Entrez Gene 11928 MouseEntrez Gene 24211 RatEntrez Gene 476 Human P05023

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Background: The sodium/potassium ATPase is an integral membrane enzyme found in all cells of higher organisms and is responsible for the ATP dependent transport of sodium and potassium across the cell membrane. This membrane bound enzyme is related to a number of other ATPases including sarcoplasmic and endoplasmic reticulum calcium ATPase (SERCA) and plasma membrane calcium ATPase (PMCA). The sodium / potassium ATPase consists of a large, multipass, transmembrane catalytic subunit, termed the alpha subunit, and an associated smaller glycoprotein, termed the beta subunit. Studies indicate that there are three isoforms of the alpha subunit (alpha 1, alpha 2, alpha 3) and two isoforms of the beta subunit (beta 1 and beta 2) encoded by two multigene families.The different isoforms of the sodium / potassium ATPase exhibit tissue specific and developmental patterns of expression. The alpha 1 and beta mRNAs are present in all cell types examined, whereas the alpha 2 and alpha 3 mRNAs exhibit a more restricted pattern of cell specific expression. The alpha subunit has been found in kidney, brain, heart, and to a lesser extent liver, skeletal and smooth muscle.

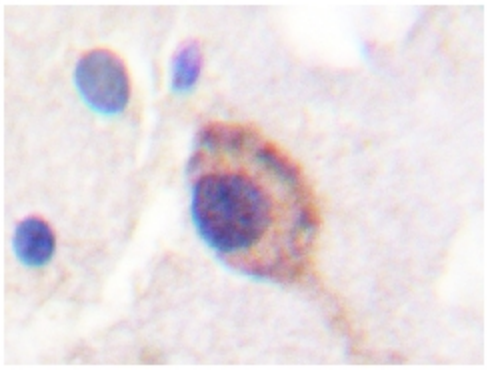
Synonyms: Sodium pump ATPase subunit alpha-1, Sodium/potassium-transporting ATPase subunit alpha

Protein Families: Druggable Genome, Transmembrane

Protein Pathways: Cardiac muscle contraction

Product images:

Western blot (WB) analysis of Na+/K+ ATPase alpha-1 antibody (Cat.-No.: [AP20203PU-N]) in extracts from 293 PMA 125ng/ml 30' cells.



Immunohistochemistry Analysis: [AP20203PU-N] ATP1A1 antibody staining of Paraffin-Embedded Human breast carcinoma tissue.