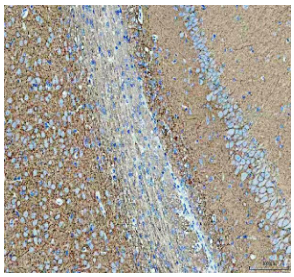
ATP1A3 Antibody / Sodium Potassium ATPase Antibody (FY13471)

Catalog No.	Formulation	Size
FY13471	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

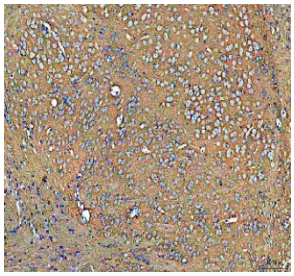
Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P13637
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml
Limitations	This ATP1A3 Antibody / Sodium Potassium ATPase Antibody is available for research use only.

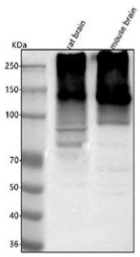


ATP1A3 Antibody Rat Brain IHC. Immunohistochemistry staining of FFPE rat brain tissue with ATP1A3 Antibody at 2 ug/ml. HIER was performed using pH 8 EDTA buffer, followed by blocking with 10% goat serum. The tissue section was incubated with rabbit anti-ATP1A3 antibody overnight at 4Â°C, followed by HRP-conjugated goat anti-rabbit IgG secondary antibody and DAB chromogen detection. ATP1A3 Antibody / Sodium Potassium ATPase Antibody demonstrates neuronal staining consistent with ATPase alpha 3 expression and supports studies of sodium potassium ion transport, membrane excitability and nervous system regulation pathways.

ATP1A3 Antibody Rat Brain Region IHC. Immunohistochemistry staining of FFPE rat brain tissue with ATP1A3 Antibody at 2 ug/ml. HIER was performed using pH 8 EDTA buffer, followed by blocking with 10% goat serum. The tissue section was incubated with rabbit anti-ATP1A3 antibody overnight at 4Â°C, followed by HRP-conjugated goat anti-rabbit IgG secondary antibody and DAB chromogen detection. ATP1A3 Antibody / Sodium Potassium ATPase Antibody demonstrates neuronal staining consistent with ATPase alpha 3 expression and supports studies of sodium potassium pump activity, neuronal ion homeostasis and nervous system signaling pathways.



ATP1A3 Antibody Mouse Brain IHC. Immunohistochemistry staining of FFPE mouse brain tissue with ATP1A3 Antibody at 2 ug/ml. HIER was performed using pH 8 EDTA buffer, followed by blocking with 10% goat serum. The tissue section was incubated with rabbit anti-ATP1A3 antibody overnight at 4Â°C, followed by HRP-conjugated goat anti-rabbit IgG secondary antibody and DAB chromogen detection. ATP1A3 Antibody / Sodium Potassium ATPase Antibody demonstrates neuronal staining consistent with ATPase alpha 3 expression and supports studies of ion transport, membrane potential regulation and nervous system signaling pathways.



ATP1A3 Antibody Rat and Mouse Brain WB. Western blot testing of rat brain and mouse brain tissue lysates with ATP1A3 Antibody at 0.5 ug/ml. Lane 1: rat brain; Lane 2: mouse brain. ATP1A3 has a predicted molecular weight of approximately 112 kDa and was detected as a major immunoreactive band above the predicted size, consistent with altered electrophoretic migration reported for multi-pass membrane ATPase proteins. ATP1A3 Antibody / Sodium Potassium ATPase Antibody supports studies of neuronal ion transport, membrane excitability and nervous system signaling pathways.

Description

ATP1A3 Antibody / Sodium Potassium ATPase Antibody detects ATPase Na K transporting subunit alpha 3, a catalytic alpha subunit of the sodium potassium ATPase membrane pump responsible for maintaining cellular ion gradients. ATP1A3 uses energy from ATP hydrolysis to exchange intracellular sodium ions for extracellular potassium ions, helping establish the electrochemical gradients required for membrane potential regulation. The alpha 3 isoform is highly enriched in neurons, where rapid restoration of ion balance is essential for normal electrical activity and cellular function.

The sodium potassium ATPase complex is a transmembrane enzyme composed of catalytic and regulatory subunits that work together to maintain ion homeostasis. ATP1A3 contributes to neuronal excitability, signal transmission and recovery following action potentials by supporting sodium and potassium balance across the plasma membrane. ATP1A3 Antibody is commonly used by researchers studying neuronal membrane biology, ion transport pathways, ATP-dependent transport mechanisms and nervous system function.

Research involving ATP1A3 has provided important insight into neurological function and disease-associated changes in ion pump activity. Mutations affecting ATP1A3 function have been investigated in neurological disorders involving abnormal neuronal signaling, movement regulation and brain development. Because neurons require precise control of membrane potential and ionic gradients, ATP1A3 remains an important target in studies of neuronal physiology, synaptic activity and neurobiology.

ATP1A3 expression is commonly examined in neural tissues and specialized cell populations to better understand sodium potassium ATPase regulation and membrane transporter activity. Studies of ATP-dependent ion pumps help define how cells maintain homeostasis, respond to changes in activity and preserve proper signaling conditions. Analysis of ATP1A3 also supports broader research into membrane protein biology, energy-dependent transport and cellular communication.

ATP1A3 Antibody applications include detection of ATPase alpha 3 expression, localization and regulation in biological samples using techniques such as Western blot, immunohistochemistry, immunofluorescence and related protein analysis methods. NSJ Bioreagents provides ATP1A3 Antibody / Sodium Potassium ATPase Antibody for researchers studying neuronal ion transport, sodium potassium ATPase function and nervous system regulation.

ATP1A3 Antibody detects a neuronal sodium potassium ATPase involved in ion transport, membrane potential regulation and nervous system signaling, making it a useful marker for research areas featured in our Neuroscience Antibodies page.

Application Notes

Optimal dilution of the ATP1A3 Antibody / Sodium Potassium ATPase Antibody should be determined by the researcher.

Immunogen

E. coli-derived recombinant human ATPase Na K transporting subunit alpha 3 protein (amino acids D24-D583) was used as the immunogen for the ATP1A3 Antibody.

Storage

After reconstitution, the ATP1A3 Antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Na K ATPase Alpha 3 Antibody, Sodium Potassium Transporting ATPase Alpha 3 Antibody, ATPase Alpha 3 Antibody, Sodium Pump Antibody, Neuronal Ion Pump Antibody, ATP1A3 Protein Antibody