

For Research Use Only

ATP1A3 Polyclonal antibody

Catalog Number: 25727-1-AP

2 Publications



Basic Information

Catalog Number:

25727-1-AP

Size:

150ul, Concentration: 1000 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG22842

GenBank Accession Number:

BC015566

GeneID (NCBI):

478

UNIPROT ID:

P13637

Full Name:

ATPase, Na⁺/K⁺ transporting, alpha 3 polypeptide

Calculated MW:

1013 aa, 112 kDa

Observed MW:

110-113 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB 1:2000-1:16000

IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC 1:50-1:500

IF-P 1:50-1:500

Applications

Tested Applications:

WB, IHC, IF-P, IP, ELISA

Cited Applications:

WB, IF

Species Specificity:

human, mouse, rat

Cited Species:

mouse

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: mouse brain tissue,

IP: rat brain tissue,

IHC: human prostate cancer tissue,

IF-P: mouse brain tissue,

Background Information

ATP1A3 participates in the catalytic hydrolysis of ATP and the exchanging of sodium and potassium ions across plasma membrane. The catalytic activity mode is $ATP + H_2O + Na^+(In) + K^+(Out) = ADP + phosphate + Na^+(Out) + K^+(In)$. It has been published that the neurologic disorders rapid-onset dystonia-parkinsonism (RDP), alternating hemiplegia of childhood (ACH) and CAPOS syndrome (cerebellar ataxia, areflexia, pes cavus, optic atrophy and sensorineural hearing loss) are all related with the mutation of ATP1A3. There are other reports suggest that early life epilepsy and episodic apnea revealing are potentially associated with the mutation of ATP1A3 as a result of impairment of Na/K homeostasis. This antibody is generated against the C-terminal region (665-1013aa) of ATP1A3 and detects the band around 100-113 kDa in SDS-PAGE. (PMID: 30097153, 20301294, 29922587)

Notable Publications

Author	Pubmed ID	Journal	Application
Shiyu Luo	38966981	Dis Model Mech	WB, IF
Jia-Teng Sun	38951640	Commun Biol	WB

Storage

Storage:

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

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

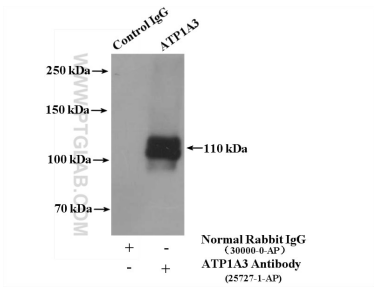
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

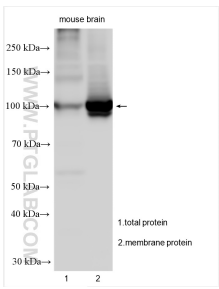
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

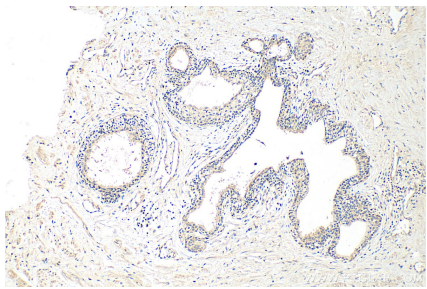
Selected Validation Data



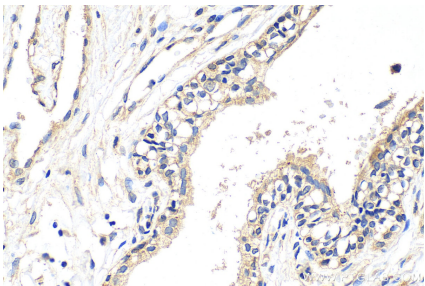
IP result of anti-ATP1A3 (IP:25727-1-AP, 4ug; Detection:25727-1-AP 1:500) with rat brain tissue lysate 4000ug.



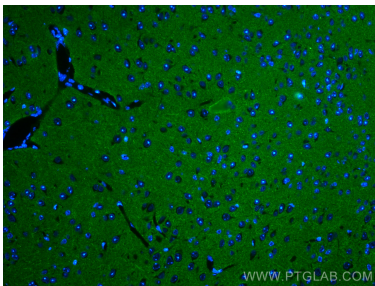
Various lysates were subjected to SDS PAGE followed by western blot with 25727-1-AP (ATP1A3 antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



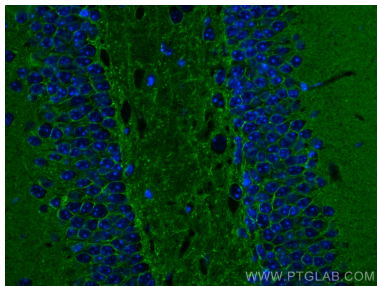
Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue slide using 25727-1-AP (ATP1A3 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue slide using 25727-1-AP (ATP1A3 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed mouse brain tissue using ATP1A3 antibody (25727-1-AP) at dilution of 1:200 and Coralite®488-Conjugated Goat Anti-Rabbit IgG(H+L).



Immunofluorescent analysis of (4% PFA) fixed mouse brain tissue using ATP1A3 antibody (25727-1-AP) at dilution of 1:200 and Coralite®488-Conjugated Goat Anti-Rabbit IgG(H+L).