

Rabbit Anti-PMCA3 antibody

SL11985R

Product Name PMCA3

Chinese Name ATP 酶钙离子 TransporterPMCA3 抗体

Alias

ATP2B3; ATP2B3 protein; Calcium Pump PMCA3 ATPase; ATPase Ca⁺⁺ transporting plasma membrane 3; Plasma membrane calcium ATPase 3; Plasma membrane calcium ATPase isoform 3; Plasma membrane calcium pump isoform 3; Plasma membrane calcium transporting ATPase 3; PMCA 3; PMCA3; PMCA3a; AT2B3_HUMAN.

Research Area

Tumour Cell biology Neurobiology Signal transduction Transporter

Immunogen Species

Rabbit

Clonality

Polyclonal

React Species

Mouse,Rat(predicted:Human,Chicken,Dog,Pig,Cow,Horse,Rabbit,Sheep)

Applications

IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 (Paraffin sections need antigen repair)
not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight

134kDa

Cellular localization

The cell membrane

Form

Liquid

Concentration 1mg/ml

immunogen

KLH conjugated synthetic peptide derived from human PMCA3/ATP2B1: 351-450/1220 <Extracellular>

Lsotype

IgG

Purification

affinity purified by Protein A

Buffer Solution

1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

Storage

Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

PubMed

[PubMed](#)

Plasma membrane-type Ca²⁺-ATPases (PMCAs) mediate the export of bivalent calcium ions from eukaryotic cells. As members of the P class of ion-motive ATPases, PMCAs are a functionally diverse group of proteins that are derived from alternatively spliced transcripts originating from four distinct genes, PMCA1, 2, 3, and 4. The expression of different PMCA isoforms and splice variants is regulated in a developmental, tissue- and cell type-specific manner, and with respect to the physiological needs of specific cell and tissue types. Spatial and temporal rates of resting intracellular Ca²⁺ concentrations and Ca²⁺ signaling in eukaryotic cells are dependent on the array of PMCA isoforms that are expressed in concert with the rate of Ca²⁺ export. PMCA3 expression is confined to brain and skeletal muscle. The PMCA4 gene is located on human chromosome 1q25 and is ubiquitously expressed.

Function:

Calcium Pump PMCA3 ATPase belongs to the family of P-type primary ion transport ATPases characterized by the formation of an aspartyl phosphate intermediate during the reaction cycle. These enzymes remove bivalent calcium ions from eukaryotic cells against very large concentration gradients and play a critical role in intracellular calcium homeostasis. The mammalian plasma membrane calcium ATPase isoforms are encoded by at least four separate genes and the diversity of these enzymes is further increased by alternative splicing of transcripts. The expression of different isoforms and splice variants is regulated in a developmental, tissue- and cell type-specific manner, suggesting that these pumps are functionally adapted to the physiological needs of particular cells and tissues. Calcium Pump PMCA3 ATPase is the plasma membrane calcium ATPase isoform 3.

**Product
Detail**

Subcellular Location:

Cell membrane; Multi-pass membrane protein.

Tissue Specificity:

Isoform XE and isoform XB are the most abundant isoforms and are detected at low levels in brain and fetal skeletal muscle. The other isoforms are only found at lower levels and not in fetal tissues.

Similarity:

Belongs to the cation transport ATPase (P-type) (TC 3.A.3) family. Type IIB subfamily.

SWISS:

P20020

Gene ID:
490

Database links:

[Entrez Gene: 490](#) Human

[Entrez Gene: 491](#) Human

[Entrez Gene: 492](#) Human

[Entrez Gene: 493](#) Human

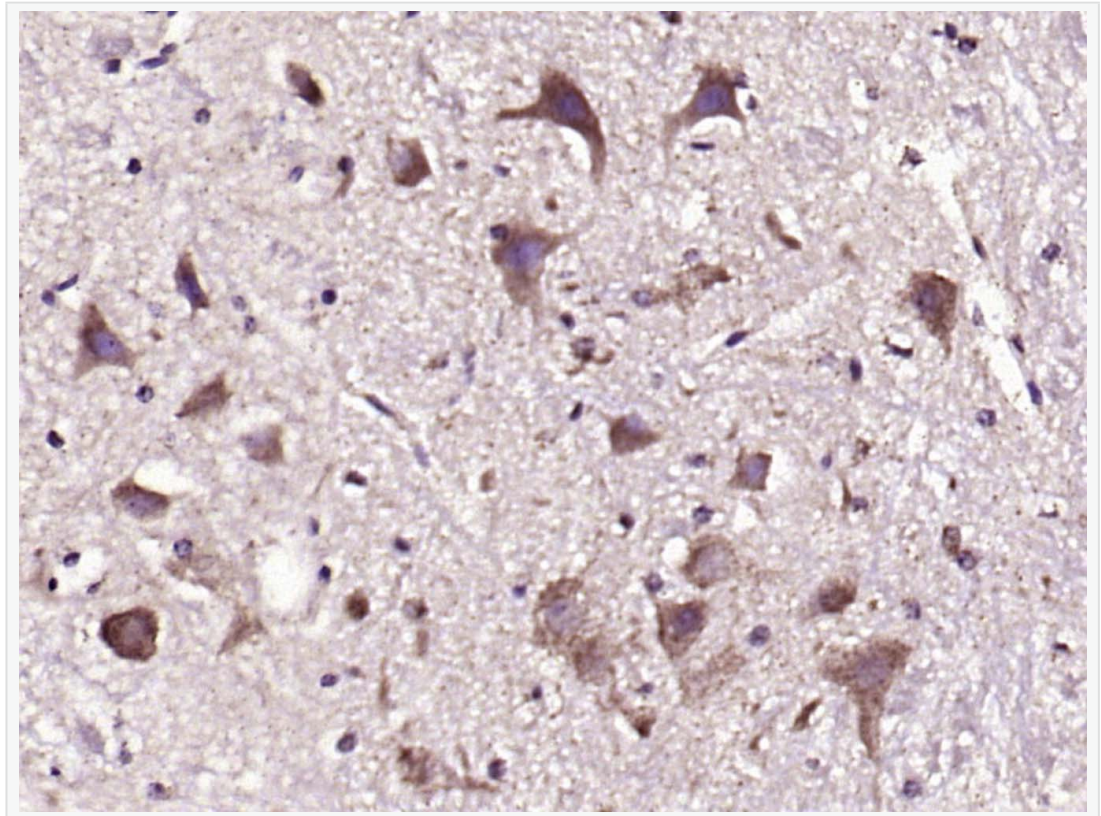
[SwissProt: P20020](#) Human

[SwissProt: P23634](#) Human

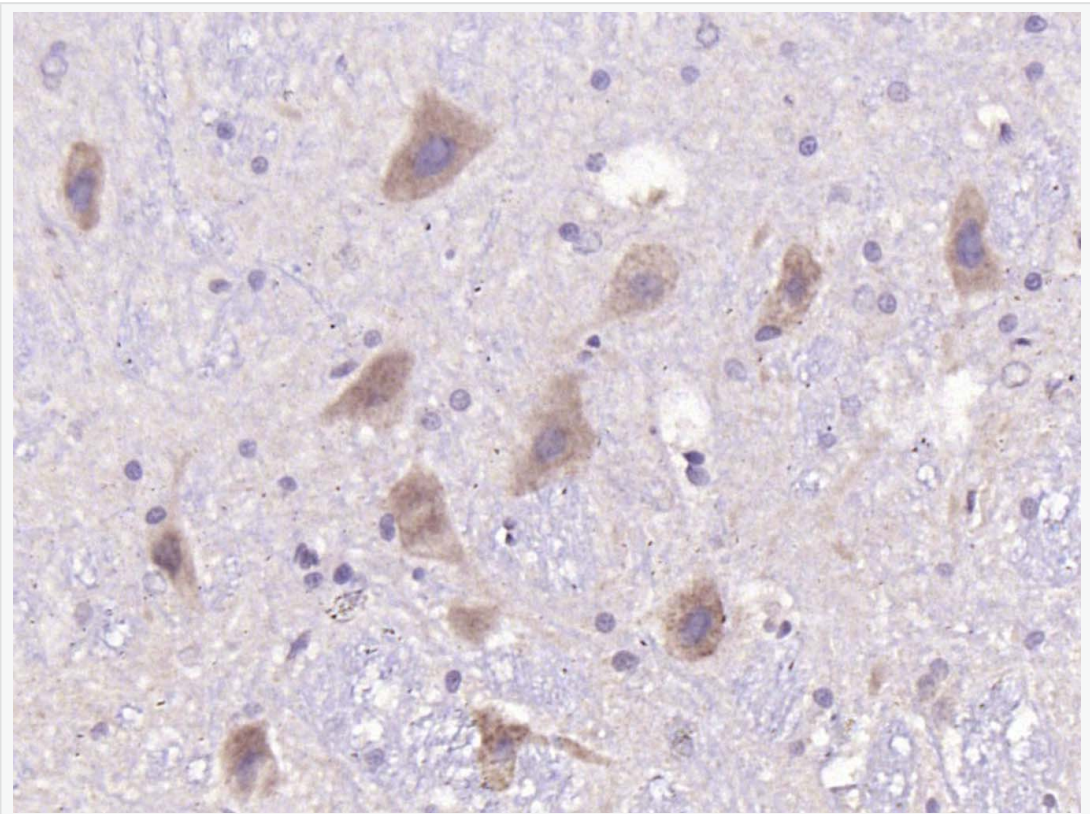
[SwissProt: Q01814](#) Human

[SwissProt: Q16720](#) Human

**Product
Picture**

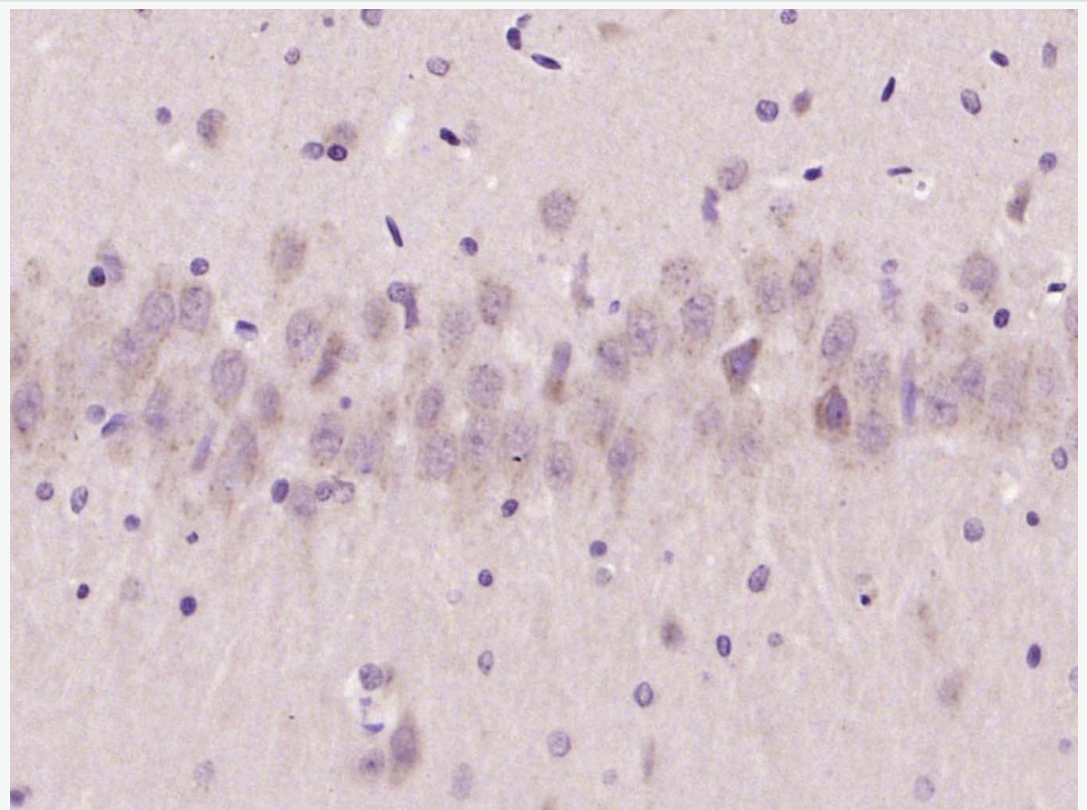


Paraformaldehyde-fixed, paraffin embedded (mouse cerebellum); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PMCA3) Polyclonal Antibody, Unconjugated (SL11985R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat cerebellum); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at

37°C for 30min; Antibody incubation with (PMCA3) Polyclonal Antibody, Unconjugated (SL11985R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PMCA3) Polyclonal Antibody, Unconjugated (SL11985R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com
