

PMCA2 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP58452

Specification

PMCA2 Polyclonal Antibody - Product Information

Application	FC
Primary Accession	O01814
Reactivity	Rat, Dog, Cow
Host	Rabbit
Clonality	Polyclonal
Calculated MW	136876

PMCA2 Polyclonal Antibody - Additional Information

Gene ID 491

Other Names

Plasma membrane calcium-transporting ATPase 2, PMCA2, 7.2.2.10, Plasma membrane calcium ATPase isoform 2, Plasma membrane calcium pump isoform 2, ATP2B2, PMCA2

Format

0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glycerol

Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

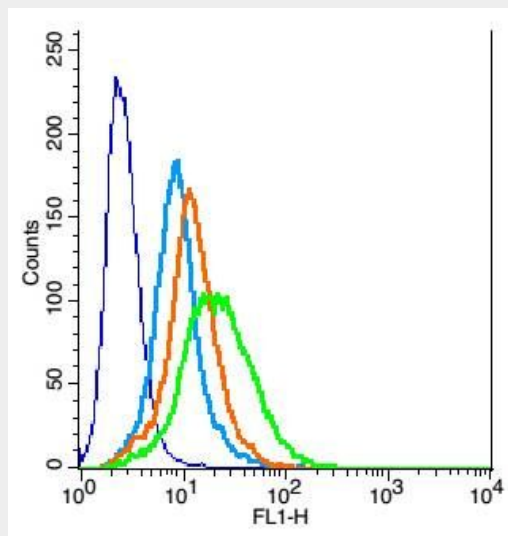
PMCA2 Polyclonal Antibody - Protein Information

Name ATP2B2

{ECO:0000303|PubMed:15829536,
ECO:0000312|HGNC:HGNC:815}

Function

ATP-driven Ca(2+) ion pump involved in the maintenance of basal intracellular Ca(2+) levels in specialized cells of cerebellar circuit and vestibular and cochlear systems (PubMed:<a href="http://www.uniprot.org/citations/17234811"



Blank control: H9C2 (blue)
Isotype Control Antibody: Rabbit IgG(orange) ; Secondary Antibody: Goat anti-rabbit IgG-FITC(white blue), Dilution: 1:100 in 1 X PBS containing 0.5% BSA ; Primary Antibody Dilution: 3 µl in 100 µl 1X PBS containing 0.5% BSA(green).

target="_blank">17234811,
PubMed:<a href="http://www.uniprot.org/citations/15829536"
target="_blank">15829536). Uses ATP
as an energy source to transport cytosolic
Ca(2+) ions across the plasma membrane
to the extracellular compartment
(PubMed:<a href="http://www.uniprot.org/citations/17234811"
target="_blank">17234811,
PubMed:<a href="http://www.uniprot.org/citations/15829536"
target="_blank">15829536). Has fast
activation and Ca(2+) clearance rate suited
to control fast neuronal Ca(2+) dynamics.
At parallel fiber to Purkinje neuron synapse,
mediates presynaptic Ca(2+) efflux in
response to climbing fiber-induced Ca(2+)
rise. Provides for fast return of Ca(2+)
concentrations back to their resting levels,
ultimately contributing to long-term
depression induction and motor learning
(By similarity). Plays an essential role in
hearing and balance (PubMed:<a href="http://www.uniprot.org/citations/17234811"
target="_blank">17234811,
PubMed:<a href="http://www.uniprot.org/citations/15829536"
target="_blank">15829536). In
cochlear hair cells, shuttles Ca(2+) ions
from stereocilia to the endolymph and
dissipates Ca(2+) transients generated by
the opening of the mechanoelectrical
transduction channels. Regulates Ca(2+)
levels in the vestibular system, where it
contributes to the formation of otoconia
(PubMed:<a href="http://www.uniprot.org/citations/17234811"
target="_blank">17234811,
PubMed:<a href="http://www.uniprot.org/citations/15829536"
target="_blank">15829536). In
non-excitable cells, regulates Ca(2+)
signaling through spatial control of Ca(2+)
ions extrusion and dissipation of Ca(2+)
transients generated by store-operated
channels (PubMed:<a href="http://www.uniprot.org/citations/25690014"
target="_blank">25690014). In
lactating mammary gland, allows for the
high content of Ca(2+) ions in the milk (By
similarity).

Cellular Location

Cell membrane; Multi-pass membrane
protein. Cell junction, synapse
{ECO:0000250|UniProtKB:Q9R0K7}

[Isoform WB]: Apical cell membrane;
Multi-pass membrane protein. Basolateral
cell membrane; Multi-pass membrane
protein [Isoform ZA]: Basolateral cell
membrane; Multi-pass membrane protein

Tissue Location

Mainly expressed in brain cortex. Found in
low levels in skeletal muscle, heart muscle,
stomach, liver, kidney and lung. Isoforms
containing segment B are found in brain
cortex and at low levels in other tissues.
Isoforms containing segments X and W are
found at low levels in all tissues. Isoforms
containing segment A and segment Z are
found at low levels in skeletal muscle and
heart muscle

PMCA2 Polyclonal Antibody - 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](#)