

## Anti-ATP2B2 / PMCA2 Antibody (Internal)

Rabbit Anti Human Polyclonal Antibody Catalog # ALS18442

## **Specification**

## Anti-ATP2B2 / PMCA2 Antibody (Internal) - Product Information

Application WB, IHC-P Primary Accession O01814

Predicted Human, Mouse, Rat

Host Rabbit
Clonality Polyclonal
Calculated MW 136876

## Anti-ATP2B2 / PMCA2 Antibody (Internal) - Additional Information

Gene ID 491

Alias Symbol ATP2B2

**Other Names** 

ATP2B2, PMCA2, Plasma membrane calcium ATPase, PMCA2i, Plasma membrane Ca2+ pump 2, Plasma membrane calcium pump, Plasma membrane Ca(2+)-ATPase, PMCA2a

## **Target/Specificity**

Recognizes endogenous levels of PMCA2 protein.

Reconstitution & Storage Immunoaffinity purified

# Precautions

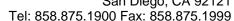
Anti-ATP2B2 / PMCA2 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

#### Anti-ATP2B2 / PMCA2 Antibody (Internal) - 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" target="\_blank">17234811</a>, PubMed:<a href="http://www.uniprot.org/citations/15829536" target="\_blank">15829536</a>). 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</a>, PubMed:<a href="http://www.uniprot.org/citations/15829536" target="\_blank">15829536</a>). 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</a>, PubMed:<a href="http://www.uniprot.org/citations/15829536" target="\_blank">15829536</a>). 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</a>, PubMed:<a href="http://www.uniprot.org/citations/15829536" target=" blank">15829536</a>). 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</a>). 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. 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

## Anti-ATP2B2 / PMCA2 Antibody (Internal) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-ATP2B2 / PMCA2 Antibody (Internal) - Images