

**ATP2B1 (aa312-327) Antibody (internal region)**  
Peptide-affinity purified goat antibody  
Catalog # AF3653a

### Specification

#### ATP2B1 (aa312-327) Antibody (internal region) - Product Information

Application	WB, E
Primary Accession	<a href="#">P20020</a>
Other Accession	<a href="#">NP_001001323.1</a> , <a href="#">NP_001673.2</a> , <a href="#">490</a> , <a href="#">67972</a> (mouse), <a href="#">29598</a> (rat)
Reactivity	Human
Predicted	Mouse, Rat, Pig, Dog
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	134685

#### ATP2B1 (aa312-327) Antibody (internal region) - Additional Information

##### Gene ID 490

##### Other Names

Plasma membrane calcium-transporting ATPase 1, PMCA1, 3.6.3.8, Plasma membrane calcium ATPase isoform 1, Plasma membrane calcium pump isoform 1, ATP2B1, PMCA1

##### Dilution

WB~~1:1000

E~~N/A

##### Format

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

##### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

##### Precautions

ATP2B1 (aa312-327) Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

#### ATP2B1 (aa312-327) Antibody (internal region) - Protein Information

##### Name ATP2B1 ([HGNC:814](#))

##### Function

Catalyzes the hydrolysis of ATP coupled with the transport of calcium from the cytoplasm to the

extracellular space thereby maintaining intracellular calcium homeostasis (PubMed:<a href="http://www.uniprot.org/citations/35358416" target="\_blank">35358416</a>). Plays a role in blood pressure regulation through regulation of intracellular calcium concentration and nitric oxide production leading to regulation of vascular smooth muscle cells vasoconstriction. Positively regulates bone mineralization through absorption of calcium from the intestine. Plays dual roles in osteoclast differentiation and survival by regulating RANKL-induced calcium oscillations in preosteoclasts and mediating calcium extrusion in mature osteoclasts (By similarity). Regulates insulin sensitivity through calcium/calmodulin signaling pathway by regulating AKT1 activation and NOS3 activation in endothelial cells (PubMed:<a href="http://www.uniprot.org/citations/29104511" target="\_blank">29104511</a>). May play a role in synaptic transmission by modulating calcium and proton dynamics at the synaptic vesicles.

#### **Cellular Location**

Cell membrane; Multi-pass membrane protein. Basolateral cell membrane {ECO:0000250|UniProtKB:G5E829}. Synapse {ECO:0000250|UniProtKB:G5E829} Presynaptic cell membrane {ECO:0000250|UniProtKB:G5E829}; Multi-pass membrane protein. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane {ECO:0000250|UniProtKB:G5E829}; Multi-pass membrane protein. Note=Colocalizes with SV2A in photoreceptor synaptic terminals. Colocalizes with NPTN to the immunological synapse. Colocalizes with EPB41 to the basolateral membrane in enterocyte. Preferentially sorted to recycling synaptic vesicles. {ECO:0000250|UniProtKB:G5E829}

#### **Tissue Location**

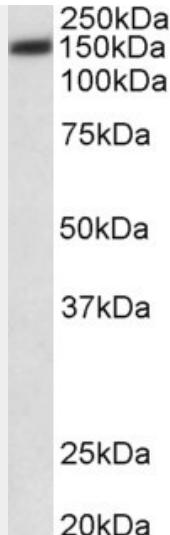
Isoform B: Ubiquitously expressed. Isoform C: Found in brain cortex, skeletal muscle and heart muscle. Isoform D: Has only been found in fetal skeletal muscle. Isoform K: Found in small intestine and liver. Abundantly expressed in the endometrial epithelial cells and glandular epithelial cells in early-proliferative phase and early-secretory phases (PubMed:21400627)

#### **ATP2B1 (aa312-327) Antibody (internal region) - 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](#)

#### **ATP2B1 (aa312-327) Antibody (internal region) - Images**



AF3653a (0.03 µg/ml) staining of HeLa lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

#### **ATP2B1 (aa312-327) Antibody (internal region) - Background**

This antibody is expected to recognize both reported isoforms (NP\_001001323.1; NP\_001673.2).

#### **ATP2B1 (aa312-327) Antibody (internal region) - References**

Insights into the oligomerization process of the C-terminal domain of human plasma membrane Ca<sup>2+</sup>-ATPase. Benetti F, Mi?eti? I, Carsughi F, Spinozzi F, Bubacco L, Beltramini M. Arch Biochem Biophys. 2011 Feb 15;506(2):194-200. PMID: 21126504