

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

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

Application	WB
Primary Accession	P20020
Other Accession	NP_001001323.1 , NP_001673.2 , 490 , 67972 (mouse), 29598 (rat)
Reactivity	Human
Predicted	Mouse, Rat, Pig, Dog, Cow
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

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:35358416). 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:29104511). 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

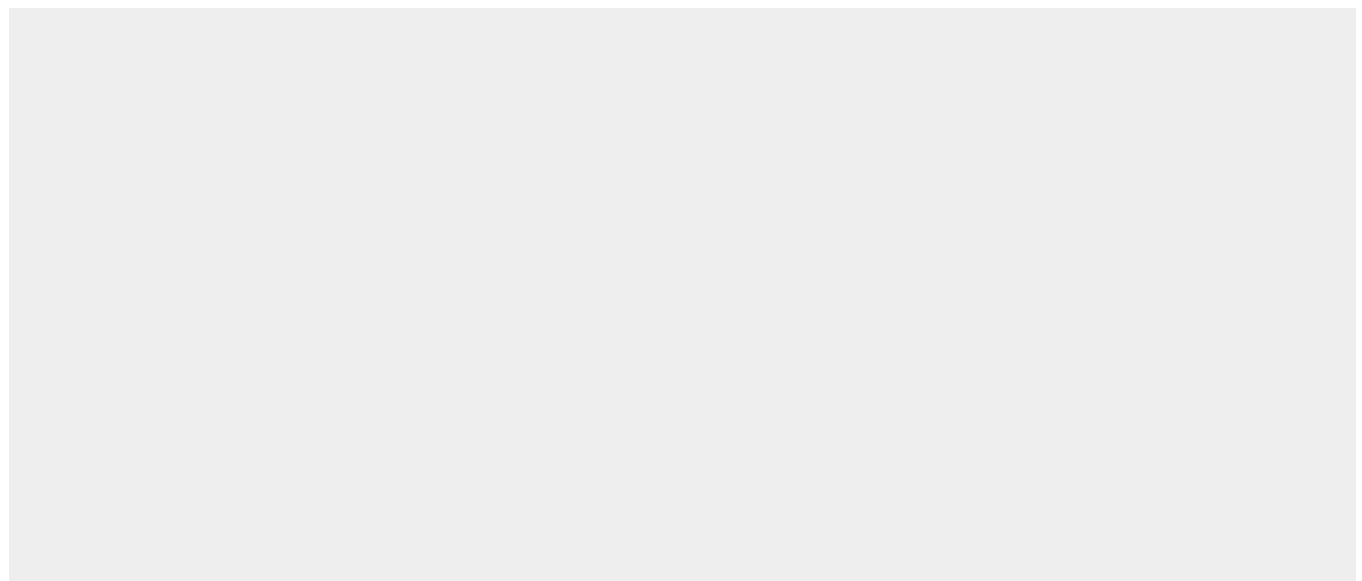
Isoform B: Ubiquitously expressed. Isoform C: Found in brain cortex, skeletal muscle and heart muscle. Isoform D: Has only been found in fetal skeletal muscle. Isoform K: Found in small intestine and liver. Abundantly expressed in the endometrial epithelial cells and glandular epithelial cells in early-proliferative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

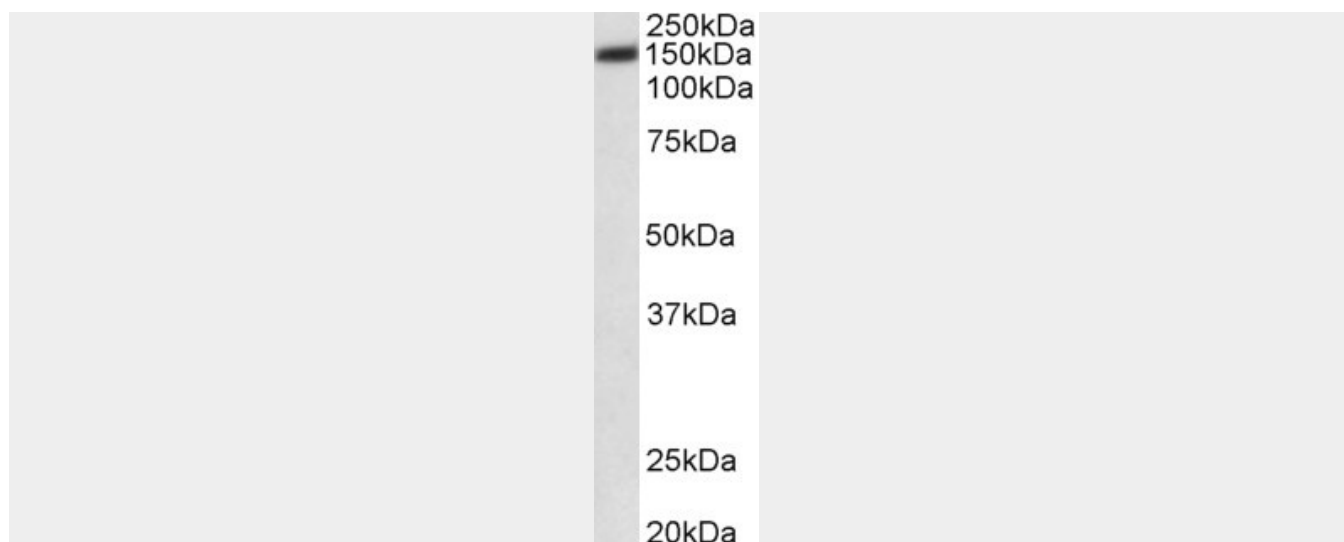
ATP2B1 (aa312-327) Antibody (internal region) - Protocols

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^{2+} -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