



ATP2B1 (PT2280R) Rabbit mAb

Catalog No	YP-rAb-18554
Isotype	IgG
Reactivity	Human,Mouse,Rat
Applications	WB、IHC、IF、ELISA
Gene Name	ATP2B1 PMCA1
Immunogen	The specific immunogen used to produce this antibody is proprietary information.
Specificity	Endogenous
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Purification	Recombinant Antibody expressed in animal component-free (ACF) media, purified via Protein A affinity chromatography.
Dilution	IHC 1:200-1:1000; WB 1:2000-1:10000; IF 1:200-1:1000; ELISA 1:5000-1:20000 Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0 (Cat#YS0004)
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	-15°C to -25°C/1 year(Do not lower than -25°C)
Synonyms	ATP2B1 PMCA1;Plasma membrane calcium-transporting ATPase 1 (PMCA1) (Plasma membrane calcium ATPase isoform 1) (Plasma membrane calcium pump isoform 1)
Observed Band	139kD
Calculated Molecular Weight	139kD
Cell Pathway	Cell membrane ; Multi-pass membrane protein . Basolateral cell membrane . Cell junction , synapse . Cell junction , synapse , presynaptic cell membrane ; Multi-pass membrane protein . Cytoplasmic vesicle , secretory vesicle , synaptic vesicle membrane ; Multi-pass membrane protein . 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. .
Tissue Specificity	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) .
Function	Catalyzes the hydrolysis of ATP coupled with the transport of calcium from the cytoplasm to the extracellular space thereby maintaining intracellular calcium homeostasis. 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 . May play a role in synaptic transmission by modulating calcium and proton dynamics at the synaptic vesicles.

Background

matters needing attention

Avoid repeated freezing and thawing!

Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

Products Images