

Phospholamban Rabbit mAb

Catalog # AP75907

Product Information

Application	WB, IHC-P, IP
Primary Accession	P26678
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	6109

Additional Information

Gene ID	5350
Other Names	PLN
Dilution	WB~~1/500-1/1000 IHC-P~~N/A IP~~N/A
Format	Liquid

Protein Information

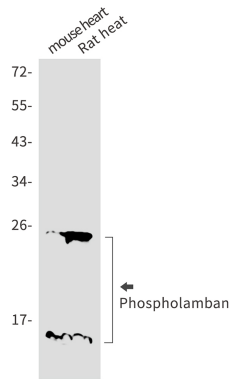
Name	PLN (HGNC:9080)
Synonyms	PLB
Function	<p>Reversibly inhibits the activity of ATP2A2/SERCA2 in cardiac sarcoplasmic reticulum by decreasing the apparent affinity of the ATPase for Ca(2+) (PubMed:28890335). Binds preferentially to the ATP- bound E1 conformational form of ATP2A2 which predominates at low Ca(2+) concentrations during the diastolic phase of the cardiac cycle (By similarity). Inhibits ATP2A2 Ca(2+) affinity by disrupting its allosteric activation by ATP (By similarity). Modulates the contractility of the heart muscle in response to physiological stimuli via its effects on ATP2A2. Modulates calcium re-uptake during muscle relaxation and plays an important role in calcium homeostasis in the heart muscle. The degree of ATP2A2 inhibition depends on the oligomeric state of PLN. ATP2A2 inhibition is alleviated by PLN phosphorylation (By similarity). Also inhibits the activity of ATP2A3/SERCA3 (By similarity). Controls intracellular Ca(2+) levels in elongated spermatids and may play a role in germ cell differentiation (By similarity). In the thalamic reticular nucleus of the brain, plays a role in the regulation of sleep patterns and executive functioning (By similarity).</p>
Cellular Location	Endoplasmic reticulum membrane; Single-pass membrane protein. Sarcoplasmic reticulum membrane; Single-pass membrane protein. Mitochondrion membrane {ECO:0000250 UniProtKB:A4IFH6}; Single-pass

membrane protein. Membrane {ECO:0000250|UniProtKB:P61014};
Single-pass membrane protein. Note=Colocalizes with HAX1 at the
endoplasmic reticulum (PubMed:17241641). Colocalizes with DMPK at the
sarcoplasmic reticulum (PubMed:15598648).

Tissue Location

Heart muscle (at protein level).

Images



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