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PLN / Phospholamban Antibody (N-Terminus)

Goat Polyclonal Antibody
Catalog # ALS15382

Specification

PLN / Phospholamban Antibody (N-Terminus) - Product Information

Application	**WB, IHC-P, E**
Primary Accession	P26678
Reactivity	**Human, Mouse, Rat, Rabbit, Monkey, Pig, Horse, Bovine, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Calculated MW	**6kDa KDa**
Dilution	**WB~~1:1000** **IHC-P~~N/A** **E~~N/A**

PLN / Phospholamban Antibody (N-Terminus) - Additional Information

Gene ID 5350

Other Names
Cardiac phospholamban, PLB, PLN, PLB

Target/Specificity
Human PLN / Phospholamban.

Reconstitution & Storage
Store at -20°C. Minimize freezing and thawing.

Precautions
PLN / Phospholamban Antibody (N-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

PLN / Phospholamban Antibody (N-Terminus) - Protein Information

Name PLN (HGNC:9080)

Synonyms PLB

Function
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).

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).

PLN / Phospholamban Antibody (N-Terminus) - 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

PLN / Phospholamban Antibody (N-Terminus) - Images

PLN antibody (0.03 ug/ml) staining of Human Heart lysate (35 ug protein/ml in RIPA buffer).

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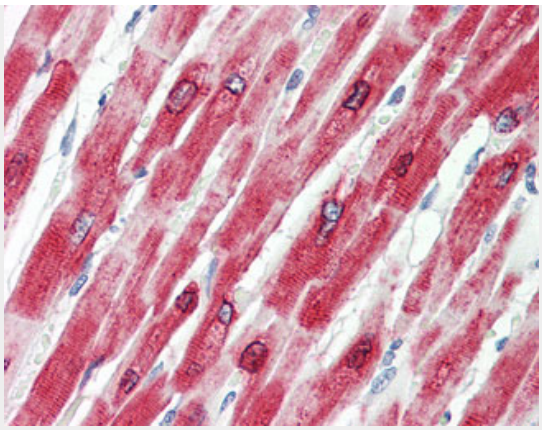

Anti-PLN / Phospholamban antibody IHC of human heart.

PLN / Phospholamban Antibody (N-Terminus) - Background

Reversibly inhibits the activity of ATP2A2 in cardiac sarcoplasmic reticulum by decreasing the apparent affinity of the ATPase for Ca(2+). 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.

PLN / Phospholamban Antibody (N-Terminus) - References

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