Datasheet for ABIN3043442

# anti-Phospholamban antibody (N-Term)

## 1 Image

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## Overview

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| Quantity: | 100 µg |
| Target: | Phospholamban (PLN) |
| Binding Specificity: | AA 1-35, N-Term |
| Reactivity: | Rat, Mouse |
| Host: | Rabbit |
| Clonality: | Polyclonal |
| Conjugate: | This Phospholamban antibody is un-conjugated |
| Application: | Western Blotting (WB), Immunohistochemistry (IHC) |

## Product Details

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| Purpose: | Anti-Phospholamban/PLN Antibody Picoband® |
| Immunogen: | A synthetic peptide corresponding to a sequence at the N-terminus of human PLN, different from the related mouse and rat sequences by one amino acid. |
| Sequence: | MEKVQYLTRS AIRRASTIEM PQQARQKLQN LFINF |
| Isotype: | IgG |
| Cross-Reactivity (Details): | No cross-reactivity with other proteins. |
| Characteristics: | Anti-Phospholamban/PLN Antibody Picoband® (ABIN3043442). Tested in IHC, WB applications. This antibody reacts with Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance. |

## Product Details

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| Purification: | Immunogen affinity purified. |

## Target Details

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| Target: | Phospholamban (PLN) |
| Alternative Name: | PLN (PLN Products) |
| Background: | Synonyms: Cardiac phospholamban,PLB,PLN,PLB,<br>Tissue Specificity: Heart muscle (at protein level). .<br>Background: Phospholamban is a 52 amino acid integral membrane protein that regulates the Ca2+ pump in cardiac muscle and skeletal muscle cells. The subsequent activation of the Ca (2+) pump leads to enhanced muscle relaxation rates, thereby contributing to the inotropic response elicited in heart by beta-agonists. Phospholamban is also expressed in slow-twitch skeletal muscle and some smooth muscle cells. It is observed that human ventricle and quadriceps displayed high levels of phospholamban transcripts and proteins, with markedly lower expression observed in smooth muscles, while the right atrium also expressed low levels of phospholamban. The structure of the human phospholamban gene closely resembles that reported for chicken, rabbit, rat, and mouse. Comparison of the human to other mammalian phospholamban genes indicated a marked conservation of sequence for at least 217 bp upstream of the transcription start site.<br>Sequence Similarities: Belongs to the phospholipase D family. |
| Molecular Weight: | 24 kDa, 12 kDa |
| Gene ID: | 5350 |
| UniProt: | P26678 |
| Pathways: | Negative Regulation of Transporter Activity |

## Application Details

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| Application Notes: | Western blot, 0.1-0.5 µg/mL, Mouse, Rat<br>Immunohistochemistry(Paraffin-embedded Section), 2-5 µg/mL, Mouse, Rat |

1. Rodriguez P, Kranias EG (December 2005). "Phospholamban: a key determinant of cardiac function and dysfunction". Arch Mal Coeur Vaiss 98 (12): 1239-43. 2. McTiernan, C. F., Frye, C. S., Lemster, B. H., Kinder, E. A., Ogletree-Hughes, M. L., Moravec, C. S., Feldman, A. M. : The human phospholamban gene: structure and expression. J. Molec. Cell Cardiol. 31: 679-692, 1999.

 

## Application Details

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| Comment: | Antibody can be supported by chemiluminescence kit ABIN921124 in WB. |
| Restrictions: | For Research Use only |

## Handling

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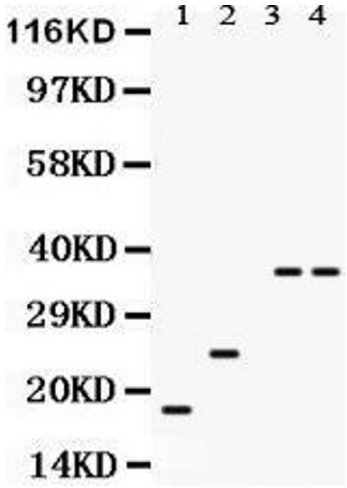
| Format: | Lyophilized |
| Reconstitution: | Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL. |
| Concentration: | 500 µg/mL |
| Buffer: | Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na2HPO4, 0.05 mg Sodium azide. |
| Preservative: | Sodium azide |
| Precaution of Use: | This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only. |
| Handling Advice: | Avoid repeated freezing and thawing. |
| Storage: | 4 °C,-20 °C |
| Storage Comment: | Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles. |

## Images




**Western Blotting**

**Image 1.** Anti- PLN Picoband antibody, Western blotting All lanes: Anti PLN at 0.5ug/ml Lane 1: Mouse Cardiac Muscle Tissue Lysate at 50ug Lane 2: Rat Cardiac Muscle Tissue Lysate at 50ug Lane 3: COLO320 Whole Cell Lysate at 40ug Lane 4: K562 Whole Cell Lysate at 40ug Predicted bind size: 6KD Observed bind size: 18, 24, 36KD