# Recombinant Human PLN protein, His & GST-tagged

**Cat. No.** PLN-1928H **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Recombinant Human PLN aa. (Met1~Leu52 (Accession # P26678)) fused with N-terminal His & GST tag was produced in E. coli cells. |
| **Species** | Human |
| **Source** | E.coli |
| **ProteinLength** | Met1~Leu52 |
| **Description** | The protein encoded by this gene is found as a pentamer and is a major substrate for the cAMP-dependent protein kinase in cardiac muscle. The encoded protein is an inhibitor of cardiac muscle sarcoplasmic reticulum Ca(2+)-ATPase in the unphosphorylated state, but inhibition is relieved upon phosphorylation of the protein. 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. The encoded protein is a key regulator of cardiac diastolic function. Mutations in this gene are a cause of inherited human dilated cardiomyopathy with refractory congestive heart failure, and also familial hypertrophic cardiomyopathy. |
| **Form** | Freeze-dried powder |
| **Molecular Mass** | Predicted Molecular Mass: 38.5kDa. |
| **Endotoxin** | <1.0EU per 1ug (determined by the LAL method) |

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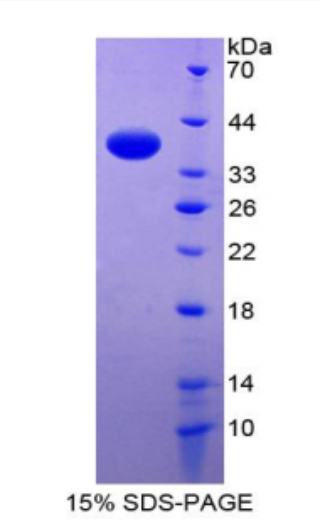
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| **Purity** | >95% |
| **Characteristic** | The isoelectric point is 7.2. |
| **Applications** | SDS-PAGE; WB; ELISA; IP. |
| **Stability** | The thermal stability is described by the loss rate of the target protein. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. (Referring from China Biological Products Standard, which was calculated by the Arrhenius equation.) The loss of this protein is less than 5% within the expiration date under appropriate storage condition. |
| **Storage** | Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months. |
| **Storage Buffer** | Supplied as lyophilized form in PBS, pH7.4, containing 5% trehalose, 0.01% sarcosyl. |
| **Reconstitution** | Reconstitute in sterile PBS, pH7.2-pH7.4. |

## GENE INFORMATION

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| **Gene Name** | PLN phospholamban [ Homo sapiens (human) ] |
| **Official Symbol** | PLN |
| **Synonyms** | Myl3; myosin, light polypeptide 3; Mylc; VLC1; MLC1s; MLC1v; MLC1SB; myosin light chain 3; myosin alkali light chain 1, ventricular/slow skeletal muscle isoform; myosin light chain 1, slow-twitch muscle B/ventricular isoform; myosin light chain, alkali, cardiac ventricles; myosin, light polypeptide 3, alkali; ventricular, skeletal, slow; slow skeletal; ventricular; ventricular/slow twitch myosin alkali light chain |

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| **Gene ID** | 5350 |
| **mRNA Refseq** | NM_002667.4 |
| **Protein Refseq** | NP_002658.1 |
| **UniProt ID** | P26678 |




SDS-PAGE

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