

## Product datasheet for **SC118501**

### Phospholamban (PLN) (NM\_002667) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Phospholamban (PLN) (NM_002667) Human Untagged Clone
Tag:	Tag Free
Symbol:	Phospholamban
Synonyms:	CMD1P; CMH18; PLB
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF sequence for NM_002667 edited ATGGAGAAAGTCCAATACCTCACTCGCTCAGCTATAAGAAGGCCTCAACCATTGAAATG CCTCAACAAGCAGTCAAAGCTACAGAATCTATTTATCAATTTCTGTCTCATCTTAATA TGCTCTTGCTGATCTGTATCATCGTGATGCTTCTCTGA
5' Read Nucleotide Sequence:	>OriGene 5' read for NM_002667 unedited NTAACGTTTCAGATTTGTAACGACTCATATAGGCGGCCGNAATTCGNCCAGNANAAAA CTCCCCAGCTAAACACCCGTAAGACTTCATACAACACAATACTCTATACTGTGATGATCA CAGCTGCCAAGGCTACCTAAAAGAAGACAGTTATCTCATATTTGGCTGCCAGCTTTTTAT CTTTCTCTCGACCACTTAAACTTCAGACTTCTGTCTGCTGGTATCATGGAGAAAGTC CAATACCTCACTCGCTCAGCTATAAGAAGGCCTCAACCATTGAAATGCCTCAACAAGCA CGTCAAAAAGCTACAGAATCTATTTATCAATTTCTGTCTCATCTTAATATGTCTCTTGCTG ATCTGTATCATCGTGATGCTTCTCTGAAGTTCTGCTACAACCTCTAGATCTGCAGTTGC CACATCAGCTTAAAACTGTGCATCCCATGCAGACAGGAAAACAATATTGTATAACAGACC ACTTCTGAGTAGAAGAGTTTCTTTGTGAAAAGGCAAGATTAAGACTAAAACCTATTGT TACCATATGTATTCATCTGTTGGATCTTGTAACATGAAAAGGGCTTTATTTTCAAAAAT TAACTTCAAAAATAAGTGTATAAAAATGCAACTGTTGATTTTCTCAACATGGCTCACAAAT TCTATCCCAAATCTTTTCTGAAGATGAAGAGTTTGTGTTTAAAACCTGCACTGCCAACAAG TCACTTCATATATAAAGCATTATTTTACTCTTTTGTAGTGAATATAATTTATATTACC ATGTANAAGCCTCTTAAACTAAGTATTTTTCAGGTCTTCAACCAAGTATCANNAGTATT ACACANATGAAGTGTCATTATTCAAATAGTCCACTGACTCTCACATCTTGATCTTAT
Restriction Sites:	NotI-NotI
ACCN:	NM_002667
Insert Size:	2600 bp



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<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_002667.2</a></u> , <u><a href="#">NP_002658.1</a></u>
<b>RefSeq Size:</b>	1712 bp
<b>RefSeq ORF:</b>	159 bp
<b>Locus ID:</b>	5350
<b>UniProt ID:</b>	<u><a href="#">P26678</a></u>
<b>Cytogenetics:</b>	6q22.31
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Calcium signaling pathway, Dilated cardiomyopathy
<b>Gene Summary:</b>	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. [provided by RefSeq, Apr 2016]