

Product datasheet for **RG202712**

Phospholamban (PLN) (NM_002667) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Phospholamban (PLN) (NM_002667) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: Phospholamban
Synonyms: CMD1P; CMH18; PLB
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG202712 representing NM_002667
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGAGAAAGTCCAATACCTCACTCGCTCAGCTATAAGAAGAGCCTCAACCATTGAAATGCCTCAACAAG
 CACGTCAAAGCTACAGAATCTATTTATCAATTTCTGTCTCATCTTAATATGTCTTTGCTGATCTGTAT
 CATCGTGATGCTTCTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG202712 representing NM_002667
 Red=Cloning site Green=Tags(s)
 MEKVQYLTRSAIRRASTIEMPPQARQKLQNLFINFLILICLLLCIIVMLL
TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI



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Cloning Scheme:


ACCN: NM_002667

ORF Size: 156 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: 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).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
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.

RefSeq: [NM_002667.5](#)

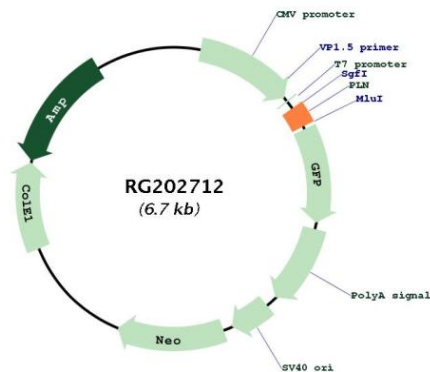
RefSeq Size: 1712 bp
 RefSeq ORF: 159 bp
 Locus ID: 5350
 UniProt ID: [P26678](#)
 Cytogenetics: 6q22.31

Protein Families: Transmembrane

Protein Pathways: Calcium signaling pathway, Dilated cardiomyopathy

Gene Summary: 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]

Product images:



Circular map for RG202712