EMPOWER YOUR RESEARCH

## Product datasheet for RC202712L3

## Phospholamban (PLN) (NM_002667) Human Tagged Lenti ORF Clone

## Product data:

Product Type:
Product Name:
Tag:
Symbol:
Synonyms:
Mammalian Cell
Selection:
Vector:
E. coli Selection:

ORF Nucleotide
Sequence:
Restriction Sites:
Cloning Scheme:

Expression Plasmids
Phospholamban (PLN) (NM_002667) Human Tagged Lenti ORF Clone
Myc-DDK
Phospholamban
CMD1P; CMH18; PLB
Puromycin
pLenti-C-Myc-DDK-P2A-Puro (PS100092)
Chloramphenicol ( $34 \mathrm{ug} / \mathrm{mL}$ )
The ORF insert of this clone is exactly the same as(RC202712).

Sgfl-Mlul

Cloning sites used for ORF Shuttling:


| EcoR I | BamH I |  | RBS |  |  |  | Kozak Consensus |  |  |  |  |  | ORF |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Sgf I |  |  |  |  |  |  |
| CTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGC C ATG .... ... .... |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Mlu 1 |  |  |  |  | Not 1 |  | Xhol |  | Myc.Tag |  |  |  |  |  |  |
| .... ... NNN* | $\overline{\mathrm{ACG}}$ | $\underset{R}{\text { CGT }} \underset{T}{A C G}$ | $\underset{R}{\mathrm{CGG}}$ | $\mathrm{G} \underset{\mathrm{P}}{\mathrm{CCG}}$ | $\overline{\mathrm{L}} \mathrm{C}$ | $\underset{E}{\text { GAG }}$ | ${ }_{\text {CAG }}$ | AAA | A CTC | ATC | TCA | GAA | $\underset{\text { GAG }}{\text { G }}$ |

## OTI Disclaimer:

## OTI Annotation:

Reconstitution Method: 1. Centrifuge at 5,000xg for 5 min .

RefSeq:
RefSeq Size:
RefSeq ORF:
Locus ID:
UniProt ID:
Cytogenetics:
Protein Families:
Protein Pathways:
MW:
Gene Summary:

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).
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 $-20^{\circ} \mathrm{C}$. The DNA is stable for at least one year from date of shipping when stored at $-20^{\circ} \mathrm{C}$.
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

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

NM 002667.2
1742 bp
159 bp
5350
P26678
6q22.31
Transmembrane
Calcium signaling pathway, Dilated cardiomyopathy
6.1 kDa

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 $\mathrm{Ca}(2+)$-ATPase in the unphosphorylated state, but inhibition is relieved upon phosphorylation of the protein. The subsequent activation of the $\mathrm{Ca}(2+)$ 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:



Double digestion of RC202712L3 using Sgfl and Mlul

