

Product datasheet for **TR318984**

Phospholamban (PLN) Human shRNA Plasmid Kit (Locus ID 5350)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Phospholamban (PLN) Human shRNA Plasmid Kit (Locus ID 5350)
Locus ID:	5350
Synonyms:	CMD1P; CMH18; PLB
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	PLN - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 5350). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	NM_002667 , NM_002667.2 , NM_002667.3 , NM_002667.4 , BC005269 , BC005269.1 , NM_002667.5
UniProt ID:	P26678
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]
shRNA Design:	These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact techsupport@origene.com . If you need a special design or shRNA sequence, please utilize our custom shRNA service .



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**Performance
Guaranteed:**

OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at techsupport@origene.com. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).