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Rabbit Anti-phospho-PLB (Thr17) antibody

SL7483R

Product Name:	phospho-PLB (Thr17)
Chinese Name:	磷酸化心脏磷蛋白抗体
Alias:	Phospholamban (phospho T17); p-Phospholamban (T17); Phospho-Phospholamban (Thr17); phospholamban(phospho Thr17); p-PLB(T17); Cardiac phospholamban; CMD1P; PLB; PLN; PPLA_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Horse,Rabbit,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	6kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human PLB around the phosphorylation site of Thr17:AS(p-T)IE
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	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. [provided by RefSeq, Jul 2008].

Function:
Phospholamban has been postulated to regulate the activity of the calcium pump of cardiac sarcoplasmic reticulum

Subcellular Location:
Mitochondrion membrane. Sarcoplasmic reticulum.

Tissue Specificity:
Heart.

Post-translational modifications:
Phosphorylated at Thr-17 by CaMK2, and in response to beta-adrenergic stimulation. Phosphorylation by DMPK may stimulate sarcoplasmic reticulum calcium uptake in cardiomyocytes.

DISEASE:
Defects in PLN are the cause of cardiomyopathy dilated type 1P (CMD1P) [MIM:609909]. Dilated cardiomyopathy is a disorder characterized by ventricular dilation and impaired systolic function, resulting in congestive heart failure and arrhythmia. Patients are at risk of premature death. Defects in PLN are the cause of cardiomyopathy familial hypertrophic type 18 (CMH18) [MIM:613874]. CMH18 is a hereditary heart disorder characterized by ventricular hypertrophy, which is usually asymmetric and often involves the interventricular septum. The symptoms include dyspnea, syncope, collapse, palpitations, and chest pain. They can be readily provoked by exercise. The disorder has inter- and intrafamilial variability ranging from benign to malignant forms with high risk of cardiac failure and sudden cardiac death.

Similarity:
Belongs to the phospholamban family.

SWISS:
P26678

Gene ID:
5350

Database links:

Entrez Gene: 5350 Human

	Entrez Gene: 18821 Mouse Entrez Gene: 64672 Rat Omim: 172405 Human SwissProt: P26678 Human SwissProt: P61014 Mouse SwissProt: P61016 Rat Unigene: 170839 Human Unigene: 34145 Mouse Unigene: 9740 Rat **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.