



# PLB (phospho Ser16/T17) Polyclonal Antibody

<b>Catalog No</b>	BYab-02432
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human;Mouse;Rat
<b>Applications</b>	WB;IHC
<b>Gene Name</b>	PLN
<b>Protein Name</b>	Cardiac phospholamban
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human PLB around the phosphorylation site of Ser16 and Thr17. AA range:1-50
<b>Specificity</b>	Phospho-PLB (S16/T17) Polyclonal Antibody detects endogenous levels of PLB protein only when phosphorylated at S16/T17.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source</b>	Polyclonal, Rabbit,IgG
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Dilution</b>	WB 1:500-2000;IHC-p 1:50-300
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	PLN; PLB; Cardiac phospholamban; PLB
<b>Observed Band</b>	
<b>Cell Pathway</b>	Endoplasmic reticulum membrane ; Single-pass membrane protein . Sarcoplasmic reticulum membrane ; Single-pass membrane protein . Mitochondrion membrane ; Single-pass membrane protein . Membrane ; Single-pass membrane protein . Colocalizes with HAX1 at the endoplasmic reticulum (PubMed:17241641). Colocalizes with DMPK a the sarcoplasmic reticulum (PubMed:15598648). .
<b>Tissue Specificity</b>	Heart muscle (at protein level).
<b>Function</b>	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.,function:Phospholamban has been postulated to regulate the activity of the calcium pump of cardiac sarcoplasmic reticulum.,PTM:Phosphorylated in response to beta-adrenergic stimulation.,similarity:Belongs to the phospholamban

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family.,subunit:Homopentamer.,tissue specificity:Heart.,

**Background**

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],

**matters needing attention**

Avoid repeated freezing and thawing!

**Usage suggestions**

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

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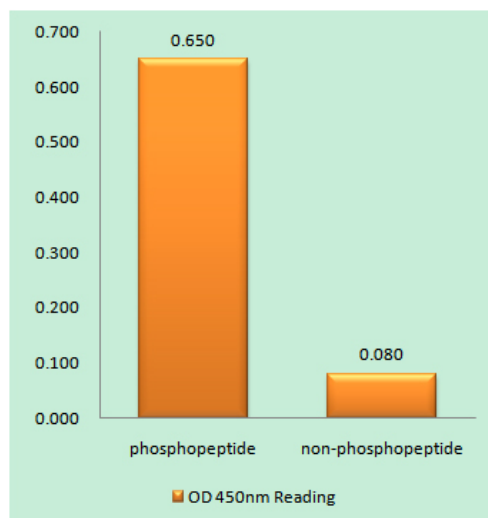
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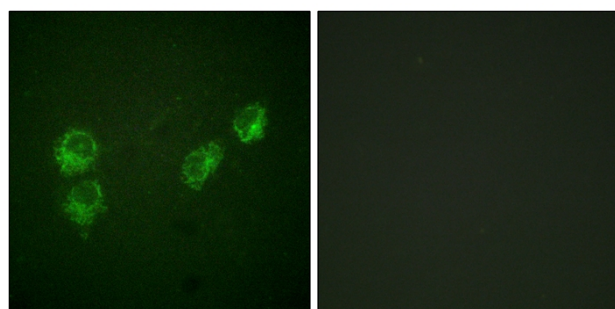
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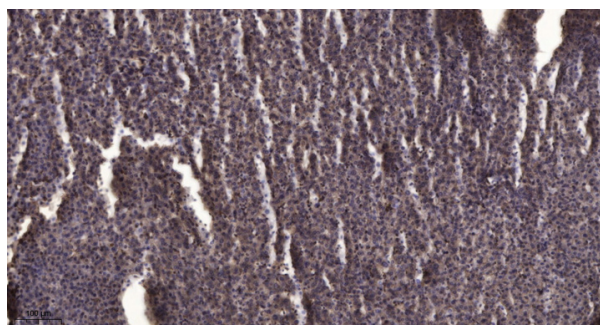
## Products Images



Enzyme-Linked Immunosorbent Assay  
 (Phospho-ELISA) for Immunogen Phosphopeptide  
 (Phospho-left) and Non-Phosphopeptide  
 (Phospho-right), using PLB (Phospho-Ser16+Thr17)  
 Antibody



Immunofluorescence analysis of HUVEC cells, using  
 PLB (Phospho-Ser16+Thr17) Antibody. The picture on  
 the right is blocked with the phosphopeptide.



Immunohistochemical analysis of paraffin-embedded  
 human liver cancer. 1, Antibody was diluted at 1:200(4°  
 overnight). 2, Tris-EDTA,pH9.0 was used for antigen  
 retrieval. 3,Secondary antibody was diluted at  
 1:200(room temperature, 45min).

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