



PLB (phospho Ser16/T17) Polyclonal Antibody

Catalog No	YP-Ab-02432
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;IHC
Gene Name	PLN
Protein Name	Cardiac phospholamban
Immunogen	The antiserum was produced against synthesized peptide derived from human PLB around the phosphorylation site of Ser16 and Thr17. AA range:1-50
Specificity	Phospho-PLB (S16/T17) Polyclonal Antibody detects endogenous levels of PLB protein only when phosphorylated at S16/T17.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-2000;IHC-p 1:50-300
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	PLN; PLB; Cardiac phospholamban; PLB
Observed Band	
Cell Pathway	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). .
Tissue Specificity	Heart muscle (at protein level).
Function	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 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],

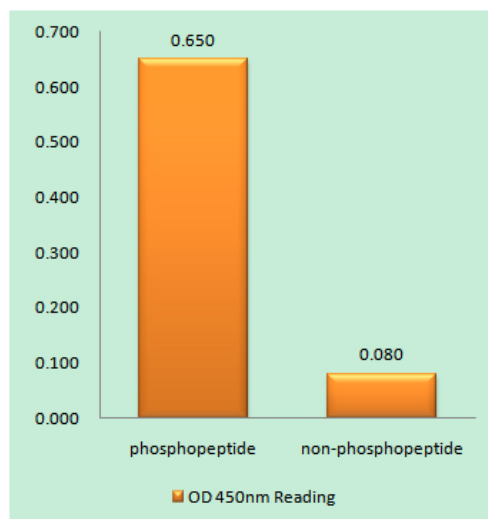
matters needing attention

Avoid repeated freezing and thawing!

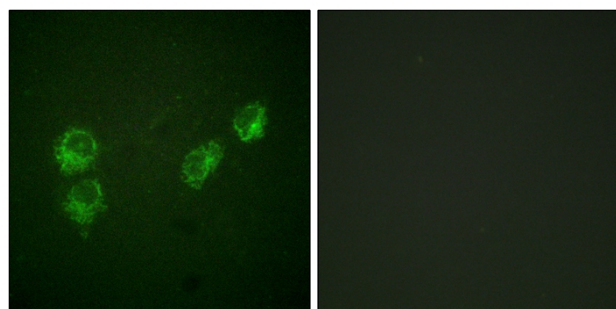
Usage suggestions

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

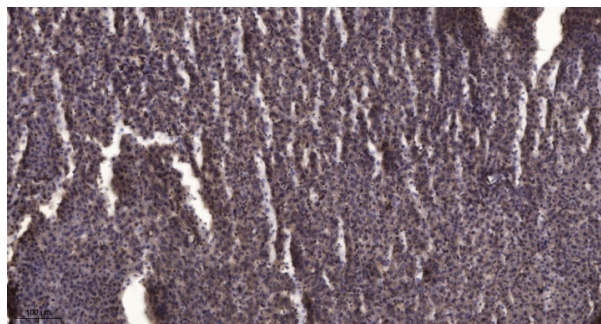
Products Images



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 phospho peptide.



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).