

PLB (phospho Ser16/T17) Polyclonal Antibody

Catalog No: YP1164

Reactivity: Human; Mouse; Rat

Applications: WB;IHC

Target: PLB

Fields: >>Calcium signaling pathway;>>cGMP-PKG signaling pathway;>>cAMP

signaling pathway;>>Adrenergic signaling in cardiomyocytes;>>Thyroid hormone

signaling pathway;>>Dilated cardiomyopathy;>>Diabetic cardiomyopathy

Gene Name: PLN

Protein Name: Cardiac phospholamban

P26678

P61014

Human Gene Id: 5350

Human Swiss Prot

No:

Mouse Gene Id: 18821

Mouse Swiss Prot

No:

Rat Gene Id: 64672

Rat Swiss Prot No: P61016

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

1/3

Dilution: WB 1:500-2000;IHC 1:50-300

Purification: The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Molecularweight: 6kD

Cell Pathway: Calcium; Dilated cardiomyopathy;

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],

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.,

Subcellular Location:

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)...

Expression: Heart muscle (at protein level).

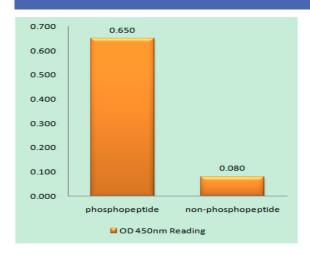
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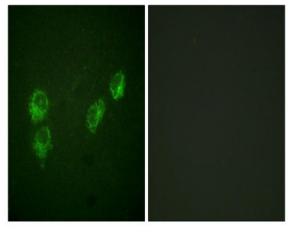
Host: Rabbit

Modifications: Phospho

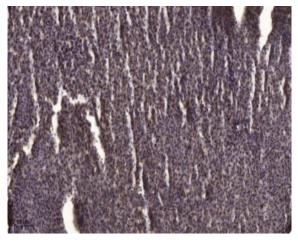
Products Images



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).