Best Tools for immunology Research

PLB Polyclonal Antibody

Catalog No :	YT3787
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
Human Gene Id :	5350
Human Swiss Prot No :	P26678
Mouse Gene Id :	18821
Mouse Swiss Prot No :	P61014
Rat Gene Id :	64672
Rat Swiss Prot No :	P61016
Immunogen :	The antiserum was produced against synthesized peptide derived from human PLB. AA range:1-50
Specificity :	PLB Polyclonal Antibody detects endogenous levels of PLB protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
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;

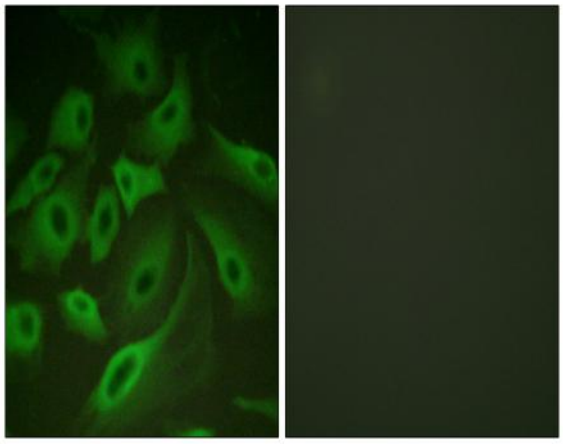
Background : The protein encoded by this gene is found as a pentamer and is a major substrate for the cAMP-dependent protein kinase in cardiac muscle. The encoded protein is an inhibitor of cardiac muscle sarcoplasmic reticulum Ca(2+)-ATPase in the unphosphorylated state, but inhibition is relieved upon 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.,

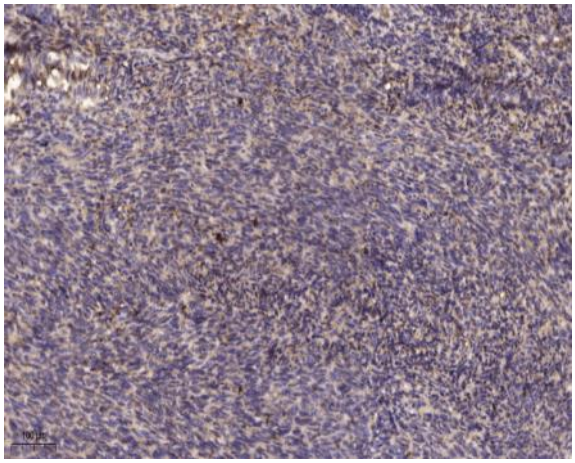
Subcellular Location : Endoplasmic reticulum membrane ; Single-pass membrane protein . Sarcoplasmic reticulum membrane ; Single-pass membrane protein . Mitochondrion membrane ; Single-pass membrane protein . Membrane ; Single-pass membrane protein . Colocalizes with HAX1 at the endoplasmic reticulum (PubMed:17241641). Colocalizes with DMPK a the sarcoplasmic reticulum (PubMed:15598648). .

Expression : Heart muscle (at protein level).

Products Images



Immunofluorescence analysis of HeLa cells, using PLB Antibody. The picture on the right is blocked with the synthesized peptide.



Immunohistochemical analysis of paraffin-embedded human uterus. 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).