Phospho-phospholamban-S16/T17 Rabbit PolymAb®

Catalog No.: AP1674PM

Basic Information

Observed MW
12 kDa/24 kDa

Calculated MW
6 kDa

Category
Monoclonal Antibodies

Applications
WB, IF/ICC, IHC-P, ELISA

Cross Reactivity
Human, Mouse, Rat

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.

Recommended Dilutions

WB	1:2000 - 1:15000
IF/ICC	1:500 - 1:4000
IHC-P	1:400 - 1:1600
ELISA	Recommended starting concentration is 1 μg/mL. Please optimize the concentration based on your specific assay requirements. For high-ratio antibody dilutions (≥1: 10000)，a sequential dilution method is strongly recommended to ensure measurement accuracy.

Immunogen Information

Gene ID
5350

Swiss-Prot
P26678

Immunogen
Synthetic peptide. This information is considered to be commercially sensitive.

Synonyms
PLB; CMD1P; CMH18

Contact

400-999-6126

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Product Information

Source
Rabbit

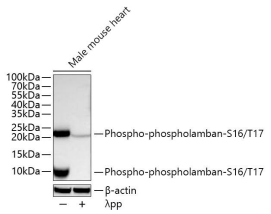
Isotype
IgG

Purity
Affinity purification

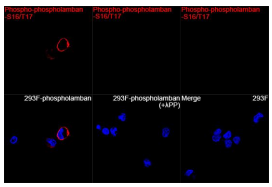
Storage

Store at -20℃. Avoid freeze / thaw cycles.
Buffer: PBS with 0.09% Sodium azide,0.05% BSA,50% glycerol,pH7.3.

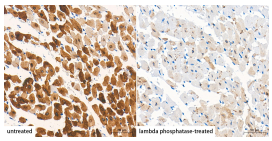
Validation Data



Western blot analysis of lysates from Male mouse heart using Phospho-phospholamban-S16/T17 Rabbit PolymAb® (AP1674PM) at 1:5000 dilution incubated overnight at 4℃. Male mouse heart were treated with λpp (2 U/μL) at 30℃ for 1 hour.
Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1: 10000 dilution.
Lysates/proteins: 30 μg per lane.
Blocking buffer: 3% nonfat dry milk in TBST.
Detection: ECL Basic Kit (RM00020).
Exposure time: 5 s.



Confocal imaging of 293F cells transfected with phospholamban, and 293F cells transfected with phospholamban and treated with λPP using Phospho-phospholamban-S16/T17 Rabbit PolymAb® (AP1674PM, dilution 1:1000) followed by a further incubation with Cy3-conjugated Goat Anti-Rabbit IgG (H+L) (AS007, dilution 1:500) (Red). DAPI was used for nuclear staining (Blue). Objective: 100x.



Immunohistochemistry analysis of paraffin-embedded Mouse heart tissue, untreated (left) and lambda phosphatase-treated (right), using Phospho-phospholamban-S16 /T17 Rabbit PolymAb® (AP1674PM) at a dilution of 1:500 (40x lens). High pressure antigen retrieval performed with 0.01M Tris-EDTA Buffer (pH 9.0) prior to IHC staining.