


Product datasheet

Anti-Phospholamban (phospho S16 + T17) antibody ab62170

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Overview

Product name	Anti-Phospholamban (phospho S16 + T17) antibody
Description	Rabbit polyclonal to Phospholamban (phospho S16 + T17)
Host species	Rabbit
Specificity	Detects endogenous levels of Phospholamban only when phosphorylated at serine 16 and threonine 17
Tested applications	Suitable for: WB, ICC/IF, ELISA
Species reactivity	Reacts with: Rat, Human Predicted to work with: Mouse 
Immunogen	Synthetic phosphopeptide derived from human Phospholamban around the phosphorylation site of serine 16 and threonine 17 (R-A-S ^P -T ^P -I-E).
Positive control	HuvEc cells

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	Preservative: 0.02% Sodium Azide Constituents: 50% Glycerol, PBS, 150mM Sodium chloride, pH 7.4
Purity	Immunogen affinity purified
Purification notes	Purified from rabbit antiserum by affinity chromatography using epitope specific phosphopeptide. The antibody against non-phosphopeptide was removed by chromatography using non-phosphopeptide corresponding to the phosphorylation site.
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab62170** in the following tested applications.

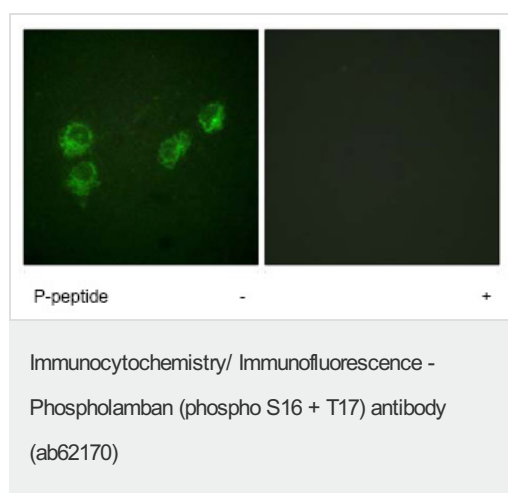
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Predicted molecular weight: 6 kDa. PubMed: 24386101
ICC/IF		1/500 - 1/1000.
ELISA		1/5000.

Target

Function	Reversibly inhibits the activity of ATP2A2 in cardiac sarcoplasmic reticulum by decreasing the apparent affinity of the ATPase for Ca(2+). Modulates the contractility of the heart muscle in response to physiological stimuli via its effects on ATP2A2. Modulates calcium re-uptake during muscle relaxation and plays an important role in calcium homeostasis in the heart muscle. The degree of ATP2A2 inhibition depends on the oligomeric state of PLN. ATP2A2 inhibition is alleviated by PLN phosphorylation.
Tissue specificity	Heart muscle (at protein level).
Involvement in disease	Cardiomyopathy, dilated 1P Cardiomyopathy, familial hypertrophic 18
Sequence similarities	Belongs to the phospholamban family.
Post-translational modifications	Phosphorylation by PKA abolishes the inhibition of ATP2A2-mediated calcium uptake. Phosphorylated at Thr-17 by CaMK2, and in response to beta-adrenergic stimulation. Phosphorylation by DMPK may stimulate sarcoplasmic reticulum calcium uptake in cardiomyocytes.
Cellular localization	Endoplasmic reticulum membrane. Sarcoplasmic reticulum membrane. Mitochondrion membrane. Membrane. Colocalizes with HAX1 at the endoplasmic reticulum (PubMed:17241641). Colocalizes with DMPK a the sarcoplasmic reticulum (PubMed:15598648).

Images



Immunofluorescence analysis of HuvEc cells, using Phospholamban (phospho S16 + T17) antibody (ab62170) at 1/500 - 1/1000 dilution, in the presence (right panel) and absence (left panel) of immunising phosphopeptide.

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