


Product datasheet

Anti-Phospholamban (phospho S16 + T17) antibody ab62170

[2 References](#) [1 Image](#)

Overview

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|----------------------------|---|
| 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 -IE). |
| Positive control | HuvEc cells |

Properties

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|-----------------------------|--|
| Form | Liquid |
| Storage instructions | Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C. |
| Storage buffer | pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 50% Glycerol, 0.87% Sodium chloride |
| 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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