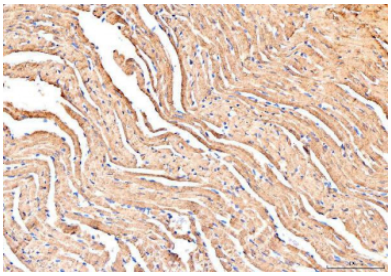
# PLB Antibody / Phospholamban / PLN (RQ6787)

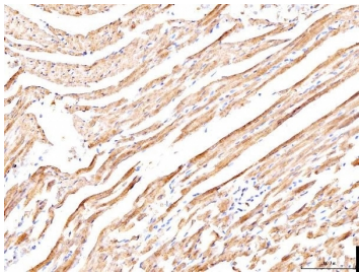
| Catalog No. | Formulation | Size |
|---|---|---|
| RQ6787 | 0.5mg/ml if reconstituted with 0.2ml sterile DI water | 100 ug |

**Bulk quote request**

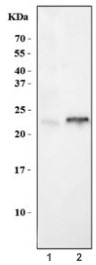
| | |
|---|---|
| **Availability** | 1-3 business days |
| **Species Reactivity** | Human, Mouse, Rat |
| **Format** | Antigen affinity purified |
| **Clonality** | Polyclonal (rabbit origin) |
| **Isotype** | Rabbit IgG |
| **Purity** | Antigen affinity purified |
| **Buffer** | Lyophilized from 1X PBS with 2% Trehalose |
| **UniProt** | P26678 |
| **Localization** | Cytoplasmic |
| **Applications** | Western Blot : 1-2ug/ml<br>Immunohistochemistry (FFPE) : 2-5ug/ml<br>Direct ELISA : 0.1-0.5ug/ml |
| **Limitations** | This PLB antibody is available for research use only. |



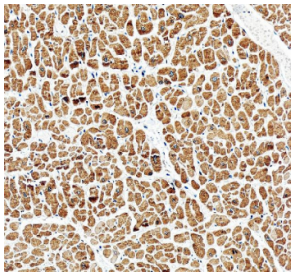
IHC staining of FFPE mouse heart tissue with PLB antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



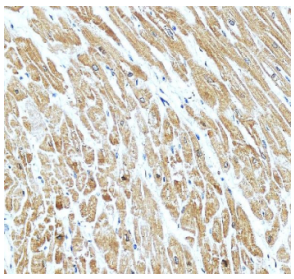
IHC staining of FFPE rat heart tissue with PLB antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.




Western blot testing of 1) rat heart and 2) mouse heart tissue lysate with PLB antibody. Predicted molecular weight: 6/12/18/24 kDa (monomer/dimer/oligomers).



IHC staining of FFPE human heart tissue with PLB antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE human heart tissue with PLB antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.

## Description

PLB (Phospholamban) is a small transmembrane protein located in the sarcoplasmic reticulum (SR) of cardiac and skeletal muscle cells. It plays a critical role in regulating calcium cycling by modulating the activity of the SR $Ca^{2+}$-ATPase (SERCA). In its unphosphorylated state, PLB inhibits SERCA function, reducing calcium uptake into the SR, while phosphorylation of PLB relieves this inhibition, enhancing calcium reuptake and promoting efficient muscle relaxation.

Through its control of SERCA activity, PLB contributes to the fine-tuning of excitationÃ¢Â€Â“contraction coupling and influences both cardiac contractility and muscle performance. Its phosphorylation status and expression levels are often measured in studies of muscle physiology, calcium signaling, and cardiac function under varying experimental conditions.

The **PLB antibody** is a reliable tool for detecting endogenous phospholamban in applications such as western blot, immunohistochemistry, and immunofluorescence. Researchers use the PLB antibody from NSJ Bioreagents to quantify protein abundance, assess subcellular localization, and evaluate phosphorylation-related changes in calcium handling. With high specificity and consistent performance, the PLB antibody supports detailed investigations into muscle physiology, calcium regulation, and sarcoplasmic reticulum function.

## Application Notes

Optimal dilution of the PLB antibody should be determined by the researcher.

## Immunogen

Recombinant human protein (amino acids M1-C36) was used as the immunogen for the PLB antibody.

## Storage

After reconstitution, the PLB antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.