

# p-phospholemman (Ser 68): sc-517349

## BACKGROUND

Phospholemman, a member of the FXD family of small membrane proteins, forms ion channels in the lipid bilayer that exhibit two novel features, selectivity for zwitterion taurine and switching between anion and cation-selective conformations. Taurine contributes as an osmolyte to regulate volume decrease, implying a role for phospholemman in this process. Furthermore, phospholemman phosphorylation occurs following adrenergic or Insulin stimulation of cardiac and skeletal muscle, which belies a potential role in muscle contractility. FXD proteins also interact with Na, K-ATPase in either the Golgi or plasma membrane in a tissue and isotype-specific manner, thus providing a possible mechanism for regulation of muscle contraction by phospholemman.

## REFERENCES

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2. Morales-Mulia, M., Pasantes-Morales, H. and Morán, J. 2000. Volume sensitive efflux of taurine in HEK293 cells overexpressing phospholemman. *Biochim. Biophys. Acta* 1496: 252-260.
3. Bogaev, R.C., Jia, L.G., Kobayashi, Y.M., Palmer, C.J., Mounsey, J.P., Moorman, J.R., Jones, L.R. and Tucker, A.L. 2001. Gene structure and expression of phospholemman in mouse. *Gene* 271: 69-79.
4. Crambert, G., Fuzesi, M., Garty, H., Karlsh, S. and Geering, K. 2002. Phospholemman (FXD1) associates with Na,K-ATPase and regulates its transport properties. *Proc. Natl. Acad. Sci. USA* 99: 11476-11481.

## CHROMOSOMAL LOCATION

Genetic locus: Fxyd1 (mouse) mapping to 7 B1.

## SOURCE

p-phospholemman (Ser 68) is a mouse monoclonal antibody raised against a synthetic peptide corresponding to the Ser 68 phosphorylated region of phospholemman protein of mouse origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## APPLICATIONS

p-phospholemman (Ser 68) is recommended for detection of Ser 68 phosphorylated phospholemman of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Suitable for use as control antibody for phospholemman siRNA (m): sc-152233, phospholemman shRNA Plasmid (m): sc-152233-SH and phospholemman shRNA (m) Lentiviral Particles: sc-152233-V.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.