

Phospholemmann (PLM) (pSer68) pAb

Quality Control Certificate of Analysis

Catalogue no. A010-111

Unit size: 200 μ L

Lot: 642054

Background

The sodium pump is the principal means of active ion transport at the cell surface of most cell types. The minimum functional unit of the pump consists of the catalytic alpha subunit (mainly alpha1 and alpha2 in the heart), and a beta subunit (mainly beta1 in the heart) which is required for trafficking to the cell surface. Tissue-specific regulation of pump activity is achieved by expression of a third accessory subunit termed FXYD after a conserved extracellular motif. In the heart, FXYD1 (phospholemmann) regulates the pump by modifying its Na⁺ affinity and Vmax. Unphosphorylated phospholemmann inhibits the pump, and phosphorylation by PKA or PKC relieves this inhibition. Phospholemmann is phosphorylated by PKA at Ser68 and by PKC at Ser63, Ser68 and Thr69 (Ser69 in mouse). Ser63 and Ser68 of PLM are significantly phosphorylated 'at rest' by PKC in ventricular myocytes.

Description	Sheep polyclonal antibody to phospholemmann phosphorylated at serine 68
Immunogen	Phospholemmann pSer68, residues 64 - 72 of rat [IRRLS*TRRR]
Antibody isotype	IgG
Antibody purity	Affinity purified on a phosphor-epitope column
Specificity	Reacts with phospholemmann phosphorylated at serine 68. Binding of antibody to its target is blocked in the presence of peptide containing the epitope.
Species cross reactivity	Reacts with human, mouse, rat, rabbit.
Tested applications	Western blot: 1 μ g/ml. Immunoprecipitation: 1-2 μ g per reaction.
Application notes	Binding of sheep immunoglobulins to their target is quick, and extended incubations increases background. Do not probe overnight. Incubate in primary antibody for 30 – 60min at room temperature, and wash for 90 – 120min with 6 – 9 changes before incubating in secondary. Recommended secondary: Pierce 31480 ImmunoPure Rabbit Anti- Sheep IgG (H+L), Peroxidase Conjugated (dilution of 1:1000 to 1:5000).
Vial constituents	Lyophilised antibody (200 μ L) in PBS plus polymer/sugar stabilizer. [IgG] 0.168 mg/mL when redissolved
Storage instructions	Lyophilised antibody is stable at 4°C when stored with desiccant. Reconstitute lyophilised powder in 200 μ L of 18 MΩ H ₂ O, aliquot and store frozen at -80°C for 1 year. Avoid freeze - thaw cycles.

Product data

