

PMCA3 (C-15): sc-22076

BACKGROUND

Plasma membrane-type Ca^{2+} -ATPases (PMCAs) mediate the export of bivalent calcium ions from eukaryotic cells. As members of the P class of ion-motive ATPases, PMCAs are a functionally diverse group of proteins that are derived from alternatively spliced transcripts originating from four distinct genes, PMCA1, 2, 3, and 4. The expression of different PMCA isoforms and splice variants is regulated in a developmental, tissue- and cell type-specific manner, and with respect to the physiological needs of specific cell and tissue types. Spatial and temporal rates of resting intracellular Ca^{2+} concentrations and Ca^{2+} signaling in eukaryotic cells are dependent on the array of PMCA isoforms that are expressed in concert with the rate of Ca^{2+} export. PMCA3 expression is confined to brain and skeletal muscle. The PMCA4 gene is located on human chromosome 1q25 and is ubiquitously expressed.

CHROMOSOMAL LOCATION

Genetic locus: ATP2B3 (human) mapping to Xq28; Atp2b3 (mouse) mapping to X A7.3.

SOURCE

PMCA3 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PMCA3 of human origin.

PRODUCT

Each vial contains 200 μg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-22076 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

PMCA3 (C-15) is recommended for detection of all isoforms of PMCA3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PMCA3 (C-15) is also recommended for detection of all isoforms of PMCA3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PMCA3 siRNA (h): sc-42600, PMCA3 siRNA (m): sc-42601, PMCA3 shRNA Plasmid (h): sc-42600-SH, PMCA3 shRNA Plasmid (m): sc-42601-SH, PMCA3 shRNA (h) Lentiviral Particles: sc-42600-V and PMCA3 shRNA (m) Lentiviral Particles: sc-42601-V.

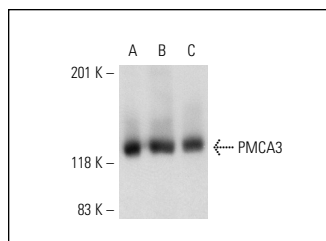
Molecular Weight of PMCA3: 130-140 kDa.

Positive Controls: mouse brain extract: sc-2253, mouse cerebellum extract: sc-2403 or rat cerebellum extract: sc-2398.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



PMCA3 (C-15): sc-22076. Western blot analysis of PMCA3 expression in mouse brain (A), mouse cerebellum (B) and rat cerebellum (C) tissue extracts.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **PMCA3 (G-6): sc-390148** or **PMCA (F-3): sc-271917**, our highly recommended monoclonal alternatives to PMCA3 (C-15).