

# PME-1 (H-226): sc-20086

## BACKGROUND

Protein phosphatase methylesterase-1 (PME-1) catalyzes the demethylation and inactivation of protein phosphatase (PP2A), which is a multimeric phosphoserine/threonine protein phosphatase associated with growth inhibition and cell cycle arrest. Carboxymethylation and demethylation is a covalent modification that regulates the catalytic activity of certain proteins in eukaryotes. Electrostatic interactions that occur at residues or metals in or near the active site can influence the specificity of carboxymethylation and demethylation. PME-1 can demethylate PP2A catalytic subunit *in vitro* and okadaic acid treatment is capable of inhibiting this reaction. PME-1 is conserved from yeast to human and contains a motif found in lipases having a catalytic triad-activated serine as their active site nucleophile.

## REFERENCES

- Lee, J., et al. 1996. A specific protein carboxyl methylesterase that demethylates phosphoprotein phosphatase 2A in bovine brain. Proc. Natl. Acad. Sci. USA 93: 6043-6047.
- Schonthal, A.H. 1998. Role of PP2A in intracellular signal transduction pathways. Front. Biosci. 3: D1262-D1273.

## CHROMOSOMAL LOCATION

Genetic locus: PPME1 (human) mapping to 11q13.4; Ppme1 (mouse) mapping to 7 E3.

## SOURCE

PME-1 (H-226) is a rabbit polyclonal antibody raised against amino acids 161-386 mapping near the C-terminus of PME-1 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.

## APPLICATIONS

PME-1 (H-226) is recommended for detection of PME-1 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).

PME-1 (H-226) is also recommended for detection of PME-1 in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for PME-1 siRNA (h): sc-36281, PME-1 siRNA (m): sc-36282, PME-1 shRNA Plasmid (h): sc-36281-SH, PME-1 shRNA Plasmid (m): sc-36282-SH, PME-1 shRNA (h) Lentiviral Particles: sc-36281-V and PME-1 shRNA (m) Lentiviral Particles: sc-36282-V.

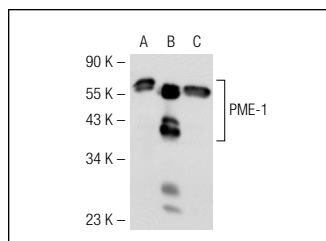
Molecular Weight of PME-1: 44 kDa.

Positive Controls: PME-1 (h): 293T Lysate: sc-116374, PME-1 (m2): 293T Lysate: sc-127356 or KNRK whole cell lysate: sc-2214.

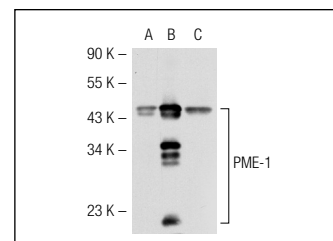
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



PME-1 (H-226): sc-20086. Western blot analysis of PME-1 expression in non-transfected 293T: sc-117752 (A), mouse PME-1 transfected 293T: sc-127356 (B) and KNRK (C) whole cell lysates.



PME-1 (H-226): sc-20086. Western blot analysis of PME-1 expression in non-transfected 293T: sc-117752 (A), human PME-1 transfected 293T: sc-116374 (B) and K-562 (C) whole cell lysates.

## SELECT PRODUCT CITATIONS

- Sjöström, M., et al. 2007. SIK1 is part of a cell sodium-sensing network that regulates active sodium transport through a calcium-dependent process. Proc. Natl. Acad. Sci. USA 104: 16922-16927.

## STORAGE

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

## RESEARCH

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

## PROTOCOLS

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



Try **PME-1 (B-12): sc-25278** or **PME-1 (A-10): sc-137145**, our highly recommended monoclonal alternatives to PME-1 (H-226).