

PCM1 (D-19): sc-50164



The Power to Question

BACKGROUND

Pericentriolar material is a dynamic substance whose composition can oscillate during the cell cycle. PCM1 (pericentriolar material 1) is a centrosomal protein that demonstrates a distinct cell cycle-dependent association with the centrosome complex. PCM1 is securely associated with the centrosome complex through G₁, S and a portion of G₂. However, late in G₂, as cells prepare for mitosis, PCM1 dissociates from the centrosome and then remains evenly diffused throughout the cell during mitosis before re-associating with the centrosomes in the G₁ phase progeny cells. The chromosomal localization of the PCM1 on chromosome 8p22 is one of interest since this region is commonly deleted in several tumors. In thyroid tumor tissue, PCM1 expression drastically decreases and its subcellular localization is shifted.

REFERENCES

1. Balczon, R., et al. 1994. PCM-1, a 228 kDa centrosome autoantigen with a distinct cell cycle distribution. *J. Cell Biol.* 124: 783-793.
2. Ohata, H., et al. 1995. Mapping of the human autoantigen pericentriolar material 1 (PCM1) gene to chromosome 8pp22. *Genomics* 24: 404-406.

CHROMOSOMAL LOCATION

Genetic locus: PCM1 (human) mapping to 8p22; Pcm1 (mouse) mapping to 8 A4.

SOURCE

PCM1 (D-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PCM1 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-50164 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PCM1 (D-19) is recommended for detection of PCM1 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). PCM1 (D-19) is also recommended for detection of PCM1 in additional species, including equine, canine, bovine and porcine. Suitable for use as control antibody for PCM1 siRNA (h): sc-61305, PCM1 siRNA (m): sc-61306, PCM1 shRNA Plasmid (h): sc-61305-SH, PCM1 shRNA Plasmid (m): sc-61306-SH, PCM1 shRNA (h) Lentiviral Particles: sc-61305-V and PCM1 shRNA (m) Lentiviral Particles: sc-61306-V.

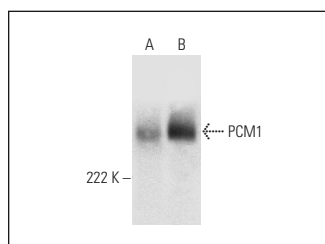
Molecular Weight of PCM1: 228 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203 or Ramos cell lysate: sc-2216.

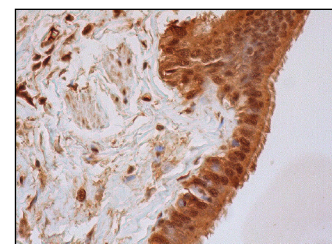
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



PCM1 (D-19): sc-50164. Western blot analysis of PCM1 expression in K-562 (A) and Ramos (B) whole cell lysates.



PCM1 (D-19): sc-50164. Immunoperoxidase staining of formalin fixed, paraffin-embedded human bronchus tissue showing cytoplasmic and nuclear staining of respiratory epithelial cells.

SELECT PRODUCT CITATIONS

1. Firat-Karalar, E.N., et al. 2014. Proximity interactions among centrosome components identify regulators of centriole duplication. *Curr. Biol.* 24: 664-670.

STORAGE

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

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 **PCM1 (G-6): sc-398365**, our highly recommended monoclonal alternative to PCM1 (D-19).