# SANTA CRUZ BIOTECHNOLOGY, INC.

# PCM1 (C-19): sc-50163



# 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 G<sub>1</sub>, S and a portion of G<sub>2</sub>. However, late in G<sub>2</sub>, 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 G<sub>1</sub> 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

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- Ohata, H., et al. 1995. Mapping of the human autoantigen pericentriolar material 1 (PCM1) gene to chromosome 8p21.3-p22. Genomics 24: 404-406.
- 3. Corvi, R., et al. 2000. RET/PCM-1: a novel fusion gene in papillary thyroid carcinoma. Oncogene 19: 4236-4242.
- Hames, R.S., et al. 2005. Dynamic recruitment of Nek2 kinase to the centrosome involves microtubules, PCM-1 and localized proteasomal degradation. Mol. Biol. Cell 16: 1711-1724.
- Murati, A., et al. 2005. PCM1-JAK2 fusion in myeloproliferative disorders and acute erythroid leukemia with t(8;9) translocation. Leukemia 19: 1692-1696.
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- Reiter, A., et al. 2005. The t(8;9)(p22;p24) is a recurrent abnormality in chronic and acute leukemia that fuses PCM1 to JAK2. Cancer Res. 65: 2662-2667.
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## CHROMOSOMAL LOCATION

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

#### SOURCE

PCM1 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PCM1 of human origin.

### **STORAGE**

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

# PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-50163 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

# **APPLICATIONS**

PCM1 (C-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), 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).

PCM1 (C-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.

#### **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) Immunofluo-rescence: 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.

# **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 Satisfation Guaranteed

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