

# PSMC1 (C-16): sc-243890

## BACKGROUND

Chromosome 14 contains about 700 genes and 106 million base pairs and makes up about 3.5% of human cellular DNA. Chromosome 14 encodes the presenilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease. The SERPINA1 gene is located on chromosome 14 and when defective leads to the genetic disorder  $\alpha$ 1-antitrypsin deficiency. This disorder is characterized by severe lung complications and liver dysfunction. Notably, the immunoglobulin heavy chain locus is found on chromosome 14 and has been identified as a fusion with the chromosome 19 encoded protein Bcl-3 in the translocations found in a variety of B cell malignancies. The PSMC1 gene product has been provisionally designated PSMC1 pending further characterization.

## REFERENCES

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3. Stolk, J., et al. 2006.  $\alpha$ 1-antitrypsin deficiency: current perspective on research, diagnosis, and management. *Int. J. Chron. Obstruct. Pulmon. Dis.* 1: 151-160.
4. Vetrivel, K.S., et al. 2006. Pathological and physiological functions of presenilins. *Mol. Neurodegener.* 1: 4.
5. Albani, D., et al. 2007. Presenilin-1 mutation E318G and familial Alzheimer's disease in the Italian population. *Neurobiol. Aging* 28: 1682-1688.
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7. Filley, C.M., et al. 2007. The genetics of very early onset Alzheimer disease. *Cogn. Behav. Neurol.* 20: 149-156.
8. Martín-Subero, J.I., et al. 2007. A comprehensive genetic and histopathologic analysis identifies two subgroups of B-cell malignancies carrying a t(14;19)(q32;q13) or variant Bcl-3 translocation. *Leukemia* 21: 1532-1544.
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## CHROMOSOMAL LOCATION

Genetic locus: PSMC1 (human) mapping to 14q32.11; Psmc1 (mouse) mapping to 12 E.

## SOURCE

PSMC1 (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of PSMC1 of human origin.

## STORAGE

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

## PRODUCT

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

Blocking peptide available for competition studies, sc-243890 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PSMC1 (C-16) is recommended for detection of PSMC1 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); non cross-reactive with other PSMC family members.

PSMC1 (C-16) is also recommended for detection of PSMC1 in additional species, including equine, canine, bovine, porcine and avian.

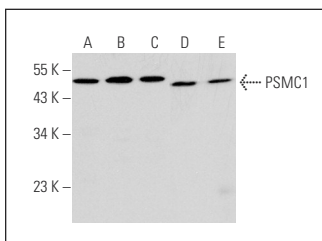
Suitable for use as control antibody for PSMC1 siRNA (h): sc-92427, PSMC1 siRNA (m): sc-152556, PSMC1 shRNA Plasmid (h): sc-92427-SH, PSMC1 shRNA Plasmid (m): sc-152556-SH, PSMC1 shRNA (h) Lentiviral Particles: sc-92427-V and PSMC1 shRNA (m) Lentiviral Particles: sc-152556-V.

Positive Controls: Jurkat whole cell lysate: sc-2204, 3T3-L1 cell lysate: sc-2243 or mouse heart extract: sc-2254.

## 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) 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



PSMC1 (C-16): sc-243890. Western blot analysis of PSMC1 expression in Jurkat (A), 3T3-L1 (B) and Neuro-2A (C) whole cell lysates and human tonsil (D) and mouse heart (E) tissue extracts.

## RESEARCH USE

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