

# PSMC2 (L-17): sc-74874

## BACKGROUND

In eukaryotic cells, selective breakdown of cellular proteins is ensured by their ubiquitination and subsequent degradation by the 26S Proteasome. The 26S Proteasome is a protease complex that selectively breaks down proteins that have been modified by polyubiquitin chains. It is made up of two multi-subunit complexes: the 20S Proteasome chamber, which serves as the proteolytic core of the complex, and two 19S regulatory particles, which recognize and unfold ubiquitinated proteins. PSMC2 (Proteasome 26S subunit ATPase 2), also known as S7 or MSS1, is a 433 amino acid member of the AAA ATPase family. Localized to both the nucleus and the cytoplasm, PSMC2 functions as a chaperone-like subunit of the 19S regulatory complex where it participates in proteasome events throughout the cell. Additionally, PSMC2 is thought to interact with several basal transcription factors and, via this interaction, may play a role in transcriptional regulation. In response to HIV-1 infection, PSMC2 can positively modulate HIV-1 Tat-mediated transactivation, thereby mediating the interaction between the transcription complex and the viral protein.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: PSMC2 (human) mapping to 7q22.1; Psmc2 (mouse) mapping to 5 A3.

## SOURCE

PSMC2 (L-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PSMC2 of human origin.

## 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-74874 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

PSMC2 (L-17) is recommended for detection of PSMC2 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).

PSMC2 (L-17) is also recommended for detection of PSMC2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PSMC2 siRNA (h): sc-76273, PSMC2 siRNA (m): sc-76274, PSMC2 shRNA Plasmid (h): sc-76273-SH, PSMC2 shRNA Plasmid (m): sc-76274-SH, PSMC2 shRNA (h) Lentiviral Particles: sc-76273-V and PSMC2 shRNA (m) Lentiviral Particles: sc-76274-V.

Molecular Weight of PSMC2: 49 kDa.

Positive Controls: SW-13 cell lysate: sc-24778, Jurkat whole cell lysate: sc-2204 or HeLa whole cell lysate: sc-2200.

## 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.

## 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.