**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**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

PSMC2 (C-1) is a mouse monoclonal antibody raised against amino acids 29-122 mapping near the N-terminus of PSMC2 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2κ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**STORAGE**

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

**APPLICATIONS**

PSMC2 (C-1) is recommended for detection of PSMC2 of mouse, rat and human origin by Western Blotting [starting dilution 1:100, 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).

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, Hep G2 cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:


**DATA**

PSMC2 (C-1): sc-166972. Western blot analysis of PSMC2 expression in HeLa (A), MD7 (B) and Hep G2 (C). Daudi (D) and K-562 (E) whole cell lysates. Detection reagents used: m-IgG (BP-HRP: sc-516102). Daudi (D) and K-562 (E) whole cell lysates. Detection reagents used: m-IgG (BP-HRP: sc-516102).

PSMC2 (C-1): sc-166972. Western blot analysis of PSMC2 expression in EOC 20 (A), MCF7 (B), and Sol II (D). Detection reagents used: C-14 (Cruz Marker™) sc-516141 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.