

# PSMD1 (H-300): sc-68351

## 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 multisubunit 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. PSMD1 (proteasome (prosome, macropain) 26S subunit, non-ATPase 1), also known as S1 or p112, is a regulatory component of the 26S Proteasome. It is widely expressed with highest expression levels found in skeletal muscle and heart. PSMD1 is the largest of at least 11 non-ATPase regulatory subunits of the 19S regulator lid and is implicated in substrate recognition and binding.

## REFERENCES

1. Yokota, K., et al. 1996. CDNA cloning of p112, the largest regulatory subunit of the human 26S Proteasome, and functional analysis of its yeast homologue, sen3p. *Mol. Biol. Cell* 7: 853-870.
2. Wang, H.Y. and Liu, S.X. 2002. Investigation on NB4 cell responses to realgar by cDNA microarray. *Zhongguo Zhong Yao Za Zhi* 27: 600-604.

## CHROMOSOMAL LOCATION

Genetic locus: PSMD1 (human) mapping to 2q37.1; Psmd1 (mouse) mapping to 1 C5.

## SOURCE

PSMD1 (H-300) is a rabbit polyclonal antibody raised against amino acids 91-390 mapping near the N-terminus of PSMD1 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.

## APPLICATIONS

PSMD1 (H-300) is recommended for detection of PSMD1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PSMD1 (H-300) is also recommended for detection of PSMD1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PSMD1 siRNA (h): sc-62898, PSMD1 siRNA (m): sc-62899, PSMD1 shRNA Plasmid (h): sc-62898-SH, PSMD1 shRNA Plasmid (m): sc-62899-SH, PSMD1 shRNA (h) Lentiviral Particles: sc-62898-V and PSMD1 shRNA (m) Lentiviral Particles: sc-62899-V.

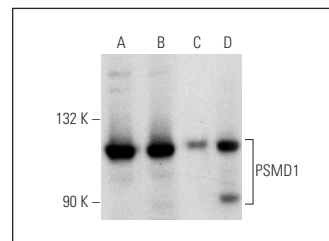
Molecular Weight of PSMD1: 106 kDa.

Positive Controls: Sol8 cell lysate: sc-2249, HeLa whole cell lysate: sc-2200 or K-562 whole cell lysate: sc-2203.

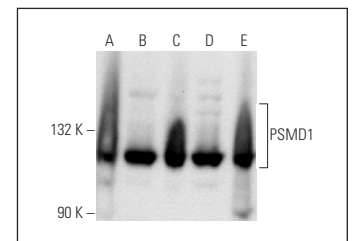
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



PSMD1 (H-300): sc-68351. Western blot analysis of PSMD1 expression in Hep G2 (A), A549 (B), GM637 (C) and NRK (D) whole cell lysates.



PSMD1 (H-300): sc-68351. Western blot analysis of PSMD1 expression in Sol8 (A), K-562 (B), Jurkat (C), HeLa (D) and A-431 (E) whole cell lysates.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Satisfaction  
Guaranteed

Try **PSMD1 (A-3): sc-514809** or **PSMD1 (G-10): sc-514808**, our highly recommended monoclonal alternatives to PSMD1 (H-300).