

# PSMD2 (H-300): sc-68352

## 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. PSMD2 (proteasome (prosome, macropain) 26S subunit, non-ATPase 2), also known as S2, TRAP2 (tumor necrosis factor type 1 receptor-associated protein 2) or p97, is a regulatory component of the 26S Proteasome. It is expressed in skeletal muscle, brain, liver, placenta, kidney, pancreas, lung and heart. PSMD2 is one of the non-ATPase regulatory subunits of the 19S regulator lid and is implicated in substrate recognition and binding.

## CHROMOSOMAL LOCATION

Genetic locus: PSMD2 (human) mapping to 3q27.1; Psmd2 (mouse) mapping to 16 B1.

## SOURCE

PSMD2 (H-300) is a rabbit polyclonal antibody raised against amino acids 491-790 mapping near the C-terminus of PSMD2 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.

## 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.

## APPLICATIONS

PSMD2 (H-300) is recommended for detection of PSMD2 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).

PSMD2 (H-300) is also recommended for detection of PSMD2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PSMD2 siRNA (h): sc-62900, PSMD2 siRNA (m): sc-62901, PSMD2 shRNA Plasmid (h): sc-62900-SH, PSMD2 shRNA Plasmid (m): sc-62901-SH, PSMD2 shRNA (h) Lentiviral Particles: sc-62900-V and PSMD2 shRNA (m) Lentiviral Particles: sc-62901-V.

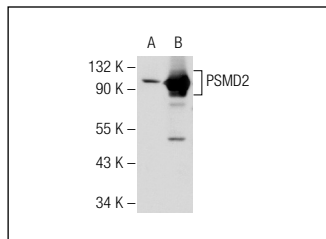
Molecular Weight of PSMD2: 97 kDa.

Positive Controls: PSMD2 (m2): 293T Lysate: sc-122820, SK-N-SH cell lysate: sc-2410 or mouse brain extract: sc-2253.

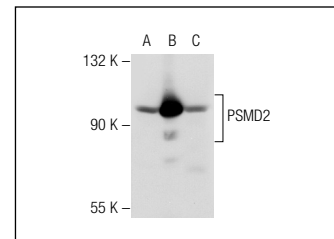
## RECOMMENDED SECONDARY REAGENTS

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



PSMD2 (H-300): sc-68352. Western blot analysis of PSMD2 expression in non-transfected: sc-117752 (A) and mouse PSMD2 transfected: sc-122820 (B) 293T whole cell lysates.



PSMD2 (H-300): sc-68352. Western blot analysis of PSMD2 expression in non-transfected: sc-117752 (A) and mouse PSMD2 transfected: sc-122822 (B) 293T whole cell lysates and mouse brain tissue extract (C).

## SELECT PRODUCT CITATIONS

- Vaitaitis, G.M. and Wagner, D.H. 2010. CD40 glycoforms and TNF-receptors 1 and 2 in the formation of CD40 receptor(s) in autoimmunity. *Mol. Immunol.* 47: 2303-2313.
- Bahk, Y.Y., et al. 2010. An analysis of an interactome for apoptosis factor, Ei24/PIG8, using the inducible expression system and shotgun proteomics. *J. Proteome Res.* 9: 5270-5283.
- Craxton, A., et al. 2012. NOXA, a sensor of proteasome integrity, is degraded by 26S proteasomes by an ubiquitin-independent pathway that is blocked by MCL-1. *Cell Death Differ.* 19: 1424-1434.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **PSMD2 (A-11): sc-271775** or **PSMD2 (C-10): sc-271584**, our highly recommended monoclonal alternatives to PSMD2 (H-300).