

PSMD3 (N-14): sc-107979

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. PSMD3 (proteasome (prosome, macropain) 26S subunit, non-ATPase, 3), also known as S3, P58 or RPN3, is a 534 amino acid regulatory component of the 26S Proteasome that consists of one PCI domain. PSMD3 is encoded by a gene located on human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes.

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.
3. Wang, H., et al. 2003. Gene expression profile changes in NB4 cells induced by realgar. *Chin. Med. J.* 116: 1074-1077.
4. Thompson, H.G., et al. 2004. Post-translationally modified S12, absent in transformed breast epithelial cells, is not associated with the 26S Proteasome and is induced by proteasome inhibitor. *Int. J. Cancer* 111: 338-347.
5. Shibahara, T., et al. 2004. Mass spectrometric analysis of expression of ATPase subunits encoded by duplicated genes in the 19S regulatory particle of rice 26S Proteasome. *Arch. Biochem. Biophys.* 421: 34-41.
6. Tan, Y., et al. 2006. Effects of tumor necrosis factor- α on the 26S Proteasome and 19S regulator in skeletal muscle of severely scalded mice. *J. Burn Care Res.* 27: 226-233.
7. Guo, H., et al. 2006. Mapping of the CCK, PSMC2, PSMC4, PSMD1, CPB1 and PSPH genes in cattle. *Anim. Genet.* 37: 73-75.
8. Wang, Z., et al. 2006. Prostaglandin J2 alters pro-survival and pro-death gene expression patterns and 26S Proteasome assembly in human neuroblastoma cells. *J. Biol. Chem.* 281: 21377-21386.
9. Deng, S., et al. 2007. Over-expression of genes and proteins of ubiquitin specific peptidases (USPs) and proteasome subunits (PSs) in breast cancer tissue observed by the methods of RFDD-PCR and proteomics. *Breast Cancer Res. Treat.* 104: 21-30.

CHROMOSOMAL LOCATION

Genetic locus: PSMD3 (human) mapping to 17q12; Psmd3 (mouse) mapping to 11 D.

SOURCE

PSMD3 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PSMD3 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-107979 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PSMD3 (N-14) is recommended for detection of PSMD3 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).

Suitable for use as control antibody for PSMD3 siRNA (h): sc-93979, PSMD3 siRNA (m): sc-152560, PSMD3 shRNA Plasmid (h): sc-93979-SH, PSMD3 shRNA Plasmid (m): sc-152560-SH, PSMD3 shRNA (h) Lentiviral Particles: sc-93979-V and PSMD3 shRNA (m) Lentiviral Particles: sc-152560-V.

Molecular Weight of PSMD3: 61 kDa.

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.

PROTOCOLS

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


 MONOS
 Satisfaction
 Guaranteed

Try **PSMD3 (G-1): sc-393588**, our highly recommended monoclonal alternative to PSMD3 (N-14).