SANTA CRUZ BIOTECHNOLOGY, INC.

PSMD3 (K-12): sc-107978

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

CHROMOSOMAL LOCATION

Genetic locus: PSMD3 (human) mapping to 17q21.1; Psmd3 (mouse) mapping to 11 D.

SOURCE

PSMD3 (K-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PSMD3 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.

Blocking peptide available for competition studies, sc-107978 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PSMD3 (K-12) 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), 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), immunohistochemistry (including paraffin-embedded sections) (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.

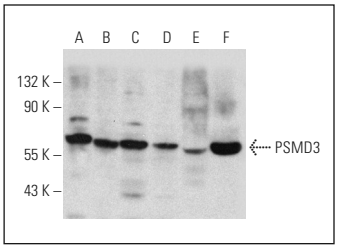
Molecular Weight of PSMD3: 61 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, NIH/3T3 whole cell lysate: sc-2210 or A-431 whole cell lysate: sc-2201.

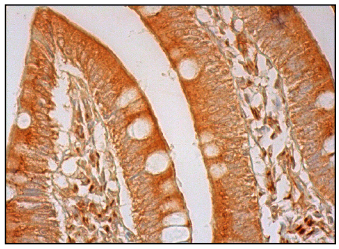
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



PSMD3 (K-12): sc-107978. Western blot analysis of PSMD3 expression in HeLa (**A**), NIH/3T3 (**B**), MCF7 (**C**), A-431 (**D**) and PC-12 (**E**) whole cell lysates and rat adrenal gland tissue extract (**F**).



PSMD3 (K-12): sc-107978. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic staining of glandular cells.

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.