SANTA CRUZ BIOTECHNOLOGY, INC.

PSMD11 (P-20): sc-79275

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

In eukaryotic cells, the 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. PSMD11 (proteasome (prosome, macropain) 26S subunit, non-ATPase, 11), also known as S9, Rpn6 or p44.5, is a 422 amino acid protein that contains one PCI domain and functions as a regulatory subunit of the 26S proteasome, playing a role in the ATP-dependent degradation of ubiquitinated proteins. The gene encoding PSMD11 maps to human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes.

REFERENCES

1. Kanayama, H.O., et al. 1992. Demonstration that a human 26S proteolytic complex consists of a proteasome and multiple associated protein components and hydrolyzes ATP and ubiquitin-ligated proteins by closely linked mechanisms. Eur. J. Biochem. 206: 567-578.
2. Coux, O., et al. 1996. Structure and functions of the 20S and 26S Proteasomes. Annu. Rev. Biochem. 65: 801-847.
3. Hoffman, L. and Rechsteiner, M. 1997. Molecular cloning and expression of subunit 9 of the 26S Proteasome. FEBS Lett. 404: 179-184.
4. Saito, A., et al. 1997. cDNA cloning and functional analysis of p44.5 and p55, two regulatory subunits of the 26S Proteasome. Gene 203: 241-250.
5. Online Mendelian Inheritance in Man, OMIM™. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 604449. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
6. Fong, A., et al. 2002. S9, a 19S Proteasome subunit interacting with ubiquitinated NFκB2/p100. J. Biol. Chem. 277: 40697-40702.
7. Urso, M.L., et al. 2007. Alterations in mRNA expression and protein products following spinal cord injury in humans. J. Physiol. 579: 877-892.

CHROMOSOMAL LOCATION

Genetic locus: PSMD11 (human) mapping to 17q11.2; Psmd11 (mouse) mapping to 11 B5.

SOURCE

PSMD11 (P-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PSMD11 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-79275 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PSMD11 (P-20) is recommended for detection of PSMD11 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).

PSMD11 (P-20) is also recommended for detection of PSMD11 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PSMD11 siRNA (h): sc-76277, PSMD11 siRNA (m): sc-76278, PSMD11 shRNA Plasmid (h): sc-76277-SH, PSMD11 shRNA Plasmid (m): sc-76278-SH, PSMD11 shRNA (h) Lentiviral Particles: sc-76277-V and PSMD11 shRNA (m) Lentiviral Particles: sc-76278-V.

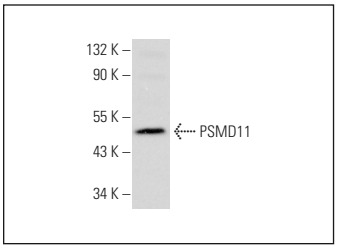
Molecular Weight of PSMD11: 46 kDa.

Positive Controls: P19 cell lysate: sc-24760.

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.

DATA



PSMD11 (P-20): sc-79275. Western blot analysis of PSMD11 expression in P19 whole cell lysate.

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.