

PSMD11 (O-23): sc-133933

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., Tamura, T., Ugai, S., Kagawa, S., Tanahashi, N., Yoshimura, T., Tanaka, K. and Ichihara, A. 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., Tanaka, K. and Goldberg, A.L. 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., Watanabe, T.K., Shimada, Y., Fujiwara, T., Slaughter, C.A., DeMartino, G.N., Tanahashi, N. and Tanaka, K. 1997. cDNA cloning and functional analysis of p44.5 and p55, two regulatory subunits of the 26S proteasome. *Gene* 203: 241-250.

CHROMOSOMAL LOCATION

Genetic locus: PSMD11 (human) mapping to 17q11.2; Psm11 (mouse) mapping to 11 B5.

SOURCE

PSMD11 (O-23) is a Protein A purified rabbit polyclonal antibody raised against synthetic PSMD11 peptide of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

PSMD11 (O-23) is recommended for detection of PSMD11 of mouse, rat, human and zebrafish 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 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.

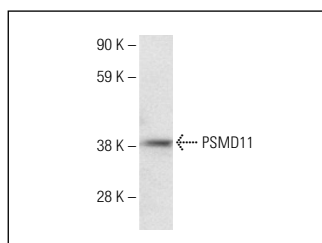
Molecular Weight of PSMD11: 46 kDa.

Positive Controls: Human fetal brain tissue extract or human kidney tissue.

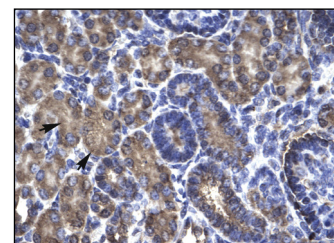
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



PSMD11 (O-23): sc-133933. Western blot analysis of PSMD11 expression in human fetal brain tissue extract.



PSMD11 (O-23): sc-133933. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human kidney tissue showing cytoplasmic localization.

RESEARCH USE

For research use only, not for use in diagnostic procedures.