SANTA CRUZ BIOTECHNOLOGY, INC.

PSMD3 (G-1): sc-393588

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 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. 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.

CHROMOSOMAL LOCATION

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

SOURCE

PSMD3 (G-1) is a mouse monoclonal antibody raised against amino acids 340-528 mapping near the C-terminus of PSMD3 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PSMD3 (G-1) is available conjugated to agarose (sc-393588 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-393588 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393588 PE), fluorescein (sc-393588 FITC), Alexa Fluor® 488 (sc-393588 AF488), Alexa Fluor® 546 (sc-393588 AF546), Alexa Fluor® 594 (sc-393588 AF594) or Alexa Fluor® 647 (sc-393588 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393588 AF680) or Alexa Fluor® 790 (sc-393588 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

PSMD3 (G-1) is recommended for detection of PSMD3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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.

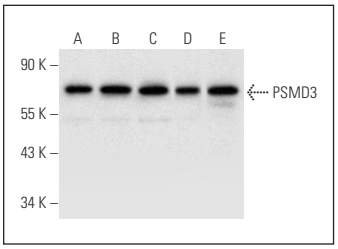
Molecular Weight of PSMD3: 61 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, HeLa whole cell lysate: sc-2200 or MCF7 whole cell lysate: sc-2206.

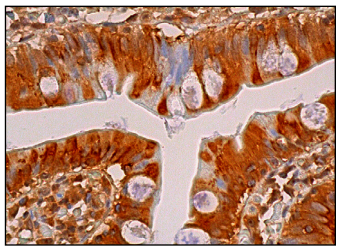
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



PSMD3 (G-1): sc-393588. Western blot analysis of PSMD3 expression in HeLa (**A**), Hep G2 (**B**), MCF7 (**C**), A-431 (**D**) and PC-12 (**E**) whole cell lysates.



PSMD3 (G-1): sc-393588. Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Rodriguez-Fernandez, I.A., et al. 2019. Loss of a proteostatic checkpoint in intestinal stem cells contributes to age-related epithelial dysfunction. Nat. Commun. 10: 1050.
2. de Almeida, M., et al. 2021. AKIRIN2 controls the nuclear import of proteasomes in vertebrates. Nature 599: 491-496.

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 for detailed protocols and support products.