

PSMD8 (H-11): sc-514053

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 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. PSMD8 (proteasome (prosome, macropain) 26S subunit, non-ATPase, 8), also known as HIP6, HYPF, Nin1p, Rpn12, S14 or p31, is a 257 amino acid protein and regulatory component of the 26S Proteasome belonging to the proteasome subunit S14 family. PSMD8 is required for the activation of CDC28 kinase, and is encoded by a gene that maps to human chromosome 19q13.2.

REFERENCES

1. Thinnes, F.P., et al. 1984. On a basic 31 kDa muscle membrane protein in cattle and pig, presumably equivalent to the class II antigen associated p31 molecule. *Anim. Blood Groups Biochem. Genet.* 15: 181-189.
2. Kominami, K., et al. 1995. Nin1p, a regulatory subunit of the 26S Proteasome, is necessary for activation of Cdc28p kinase of *Saccharomyces cerevisiae*. *EMBO J.* 14: 3105-3115.
3. Zhou, J., et al. 1996. Expression of early lung cancer detection marker p31 in neoplastic and non-neoplastic respiratory epithelium. *Lung Cancer* 14: 85-97.

CHROMOSOMAL LOCATION

Genetic locus: PSMD8 (human) mapping to 19q13.2; Psm8 (mouse) mapping to 7 B1.

SOURCE

PSMD8 (H-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 129-154 within an internal region of PSMD8 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.

PSMD8 (H-11) is available conjugated to agarose (sc-514053 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514053 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514053 PE), fluorescein (sc-514053 FITC), Alexa Fluor® 488 (sc-514053 AF488), Alexa Fluor® 546 (sc-514053 AF546), Alexa Fluor® 594 (sc-514053 AF594) or Alexa Fluor® 647 (sc-514053 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514053 AF680) or Alexa Fluor® 790 (sc-514053 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514053 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

PSMD8 (H-11) is recommended for detection of PSMD8 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for PSMD8 siRNA (h): sc-97286, PSMD8 siRNA (m): sc-152563, PSMD8 shRNA Plasmid (h): sc-97286-SH, PSMD8 shRNA Plasmid (m): sc-152563-SH, PSMD8 shRNA (h) Lentiviral Particles: sc-97286-V and PSMD8 shRNA (m) Lentiviral Particles: sc-152563-V.

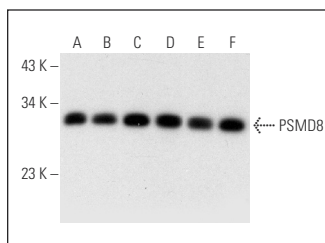
Molecular Weight of PSMD8: 36 kDa.

Positive Controls: A549 cell lysate: sc-2413, MIA PaCa-2 cell lysate: sc-2285 or NIH/3T3 whole cell lysate: sc-2210.

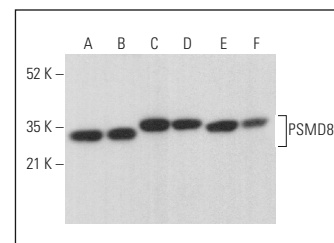
RECOMMENDED SUPPORT REAGENTS

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.

DATA



PSMD8 (H-11): sc-514053. Western blot analysis of PSMD8 expression in A549 (A), HeLa (B), ES-2 (C), COLO 320DM (D), SK-N-MC (E) and MIA PaCa-2 (F) whole cell lysates.



PSMD8 (H-11): sc-514053. Western blot analysis of PSMD8 expression in MIA PaCa-2 (A), SW480 (B), SK-N-SH (C), c4 (D), NIH/3T3 (E) and COLO 205 (F) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Stella, R., et al. 2021. Perturbations of the proteome and of secreted metabolites in primary astrocytes from the hSOD1(G93A) ALS mouse model. *Int. J. Mol. Sci.* 22: 7028.

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.