

PSMB6 (B-6): sc-515919

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. The 20S Proteasome chamber contains α subunits (which are structural) and β subunits (which are predominantly catalytic). The outer two rings in the proteasome consist of seven α subunits each, and the inner two rings each consist of seven β subunits. PSMB6 (prosome, macropain) subunit, β type, 6), also known as LMPY (PSY large multifunctional protease Y), macropain δ chain, proteasome δ chain or proteasome subunit Y, is a β subunit of the 20S Proteasome and, upon stimulation with IFN- γ , can be displaced by LMP2.

REFERENCES

- Orlowski, M., et al. 1997. Reactions of [14C]-3,4-dichloroisocoumarin with subunits of pituitary and spleen multicatalytic proteinase complexes (proteasomes). *Biochemistry* 36: 13946-13953.
- Nandi, D., et al. 1997. Intermediates in the formation of mouse 20S Proteasomes: implications for the assembly of precursor β subunits. *EMBO J.* 16: 5363-5375.
- Takezaki, N., et al. 2002. Sequencing of amphioxus PSMB5/8 gene and phylogenetic position of agnathan sequences. *Gene* 282: 179-187.

CHROMOSOMAL LOCATION

Genetic locus: PSMB6 (human) mapping to 17p13.2; Psmb6 (mouse) mapping to 11 B3.

SOURCE

PSMB6 (B-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 51-77 within an internal region of PSMB6 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PSMB6 (B-6) is available conjugated to agarose (sc-515919 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515919 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515919 PE), fluorescein (sc-515919 FITC), Alexa Fluor[®] 488 (sc-515919 AF488), Alexa Fluor[®] 546 (sc-515919 AF546), Alexa Fluor[®] 594 (sc-515919 AF594) or Alexa Fluor[®] 647 (sc-515919 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-515919 AF680) or Alexa Fluor[®] 790 (sc-515919 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

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

APPLICATIONS

PSMB6 (B-6) is recommended for detection of PSMB6 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 PSMB6 siRNA (h): sc-76271, PSMB6 siRNA (m): sc-76272, PSMB6 shRNA Plasmid (h): sc-76271-SH, PSMB6 shRNA Plasmid (m): sc-76272-SH, PSMB6 shRNA (h) Lentiviral Particles: sc-76271-V and PSMB6 shRNA (m) Lentiviral Particles: sc-76272-V.

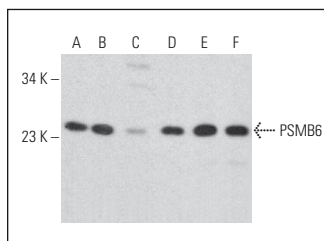
Molecular Weight of PSMB6: 25 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, SK-N-SH cell lysate: sc-2410 or Caco-2 cell lysate: sc-2262.

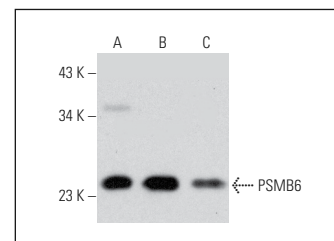
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



PSMB6 (B-6): sc-515919. Western blot analysis of PSMB6 expression in C2C12 (A), Sol8 (B), L8 (C), AMJZ-C8 (D), Neuro-2A (E) and c4 (F) whole cell lysates.



PSMB6 (B-6): sc-515919. Western blot analysis of PSMB6 expression in HeLa (A), SK-N-SH (B) and Caco-2 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

- Reuven, N., et al. 2019. Recruitment of DNA repair MRN complex by intrinsically disordered protein domain fused to Cas9 improves efficiency of CRISPR-mediated genome editing. *Biomolecules* 9: 584.
- Luo, H., et al. 2023. Combinations of ivermectin with proteasome inhibitors induce synergistic lethality in multiple myeloma. *Cancer Lett.* 565: 216218.

STORAGE

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