SANTA CRUZ BIOTECHNOLOGY, INC.

PSMB6 (B-6): sc-515919

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. 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 (proteasome (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

1. 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.
2. 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.
3. Takezaki, N., et al. 2002. Sequencing of amphioxus PSMB5/8 gene and phylogenetic position of agnathan sequences. Gene 282: 179-187.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 600307. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

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 µg IgG_1 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 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515919 HRP), 200 µg/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 µg/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 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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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 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 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.

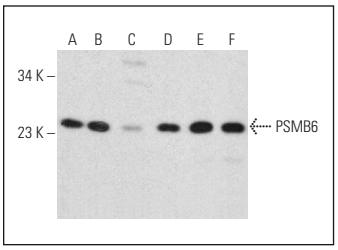
Molecular Weight of PSMB6: 25 kDa.

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

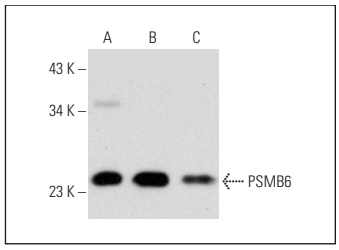
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-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



PSMB6 (B-6): sc-515919. Western blot analysis of PSMB6 expression in C2C12 (**A**), Sol8 (**B**), L8 (**C**), AMJ2-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

1. 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 pii: E584.

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. Not for resale.