

PSMB6 (JQ-3): sc-100455

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.

CHROMOSOMAL LOCATION

Genetic locus: PSMB6 (human) mapping to 17p13.2.

SOURCE

PSMB6 (JQ-3) is a mouse monoclonal antibody raised against recombinant PSMB6 of human origin.

PRODUCT

Each vial contains 100 μ g IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

PSMB6 (JQ-3) is recommended for detection of PSMB6 of human origin by Western Blotting (starting dilution 1:200, 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), 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 PSMB6 siRNA (h): sc-76271, PSMB6 shRNA Plasmid (h): sc-76271-SH and PSMB6 shRNA (h) Lentiviral Particles: sc-76271-V.

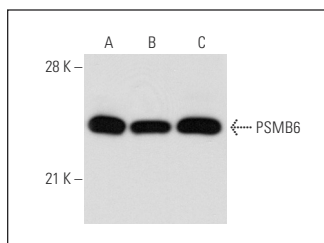
Molecular Weight of PSMB6: 25 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410, HeLa whole cell lysate: sc-2200 or SW-13 cell lysate: sc-24778.

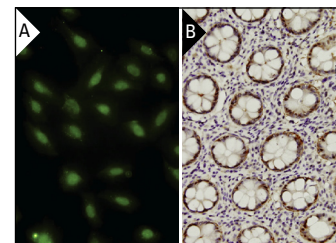
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



PSMB6 (JQ-3): sc-100455. Western blot analysis of PSMB6 expression in SK-N-SH (A), HeLa (B) and SW-13 (C) whole cell lysates.



PSMB6 (JQ-3): sc-100455. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells (A) showing nuclear localization and immunoperoxidase staining of formalin-fixed, paraffin-embedded human colon tissue (B) showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Yuan, F., et al. 2013. Proteomic profiling of expression of proteasomal subunits from livers of mice treated with diethylnitrosamine. *Proteomics* 13: 389-397.
- Yuan, F., et al. 2013. A novel role of proteasomal β 1 subunit in tumorigenesis. *Biosci. Rep.* 33: e00050.

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.