

# PSMB11 (H-1): sc-515132

## 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  $\alpha$  subunits (which are structural) and  $\beta$  subunits (which are predominantly catalytic). The outer two rings in the proteasome consist of seven  $\alpha$  subunits each, and the inner two rings each consist of seven  $\beta$  subunits. PSMB11 (proteasome subunit  $\beta$  type-11), also known as BETA5T (proteasome subunit  $\beta$ -5t) is a 300 amino acid protein that plays an important role in CD8-positive T-cells and reduces chymotrypsin-like activity in proteasomes.

## 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  $\beta$  subunits. *EMBO J.* 16: 5363-5375.
- McCusker, D., et al. 1997. Genetic relationships of the genes encoding the human proteasome  $\beta$  subunits and the proteasome PA28 complex. *Genomics* 45: 362-367.

## CHROMOSOMAL LOCATION

Genetic locus: PSMB11 (human) mapping to 14q11.2.

## SOURCE

PSMB11 (H-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 113-130 within an internal region of PSMB11 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG $\kappa$ , kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PSMB11 (H-1) is available conjugated to agarose (sc-515132 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515132 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515132 PE), fluorescein (sc-515132 FITC), Alexa Fluor<sup>®</sup> 488 (sc-515132 AF488), Alexa Fluor<sup>®</sup> 546 (sc-515132 AF546), Alexa Fluor<sup>®</sup> 594 (sc-515132 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-515132 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-515132 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-515132 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515132 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## APPLICATIONS

PSMB11 (H-1) is recommended for detection of PSMB11 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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 PSMB11 siRNA (h): sc-92455, PSMB11 shRNA Plasmid (h): sc-92455-SH and PSMB11 shRNA (h) Lentiviral Particles: sc-92455-V.

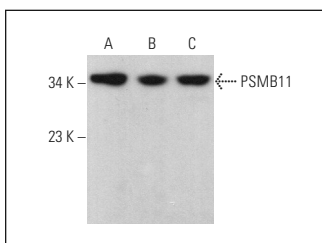
Molecular Weight of PSMB11: 33 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, RT-4 whole cell lysate: sc-364257 or OVCAR-3 whole cell lysate.

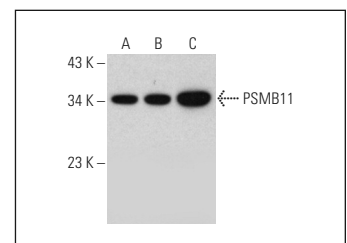
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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 $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



PSMB11 (H-1): sc-515132. Western blot analysis of PSMB11 expression in Jurkat (A), HeLa (B) and HL-60 (C) whole cell lysates.



PSMB11 (H-1): sc-515132. Western blot analysis of PSMB11 expression in OVCAR-3 (A), Jurkat (B) and RT-4 (C) whole cell lysates.

## 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](http://www.scbt.com) for detailed protocols and support products.