# abcam

## Product datasheet

# Anti-Proteasome subunit beta type 2/PSMB2 antibody [MCP165] ab22650

★★★★ 1 Abreviews 4 References 4 Images

Overview

Product name Anti-Proteasome subunit beta type 2/PSMB2 antibody [MCP165]

**Description**Mouse monoclonal [MCP165] to Proteasome subunit beta type 2/PSMB2

Host species Mouse

**Tested applications** Suitable for: Flow Cyt, IHC-P, WB

Unsuitable for: IP

Species reactivity Reacts with: Human

**Immunogen** Full length protein corresponding to Human Proteasome subunit beta type 2/PSMB2.

Dinitrophenylated proteasomes

Database link: P49721

Positive control WB: HeLa cell lysate; human ciliary body lysate. IHC-P: Human lymphoid tissue. Flow cyt: HeLa

cells.

**General notes**The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

**Properties** 

Form Liquid

Storage instructions Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -

80°C. Avoid freeze / thaw cycle.

**Storage buffer** Preservative: 0.032% Sodium azide

Constituents: 0.316% Tris HCI, 0.58% Sodium chloride

**Purity** Protein G purified

Clonality Monoclonal
Clone number MCP165

1

### **Applications**

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab22650 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt		Use $1\mu g$ for $10^6$ cells. <u>ab170190</u> - Mouse monoclonal lgG1, is suitable for use as an isotype control with this antibody.
IHC-P		Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB	**** <u>(1)</u>	1/1000. Detects a band of approximately 28 kDa (predicted molecular weight: 23 kDa).

**Application notes** 

Is unsuitable for IP.

### **Target**

**Function** 

The proteasome is a multicatalytic proteinase complex which is characterized by its ability to cleave peptides with Arg, Phe, Tyr, Leu, and Glu adjacent to the leaving group at neutral or slightly basic pH. The proteasome has an ATP-dependent proteolytic activity. This subunit has a trypsin-like activity.

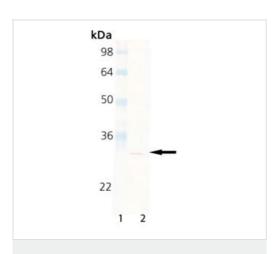
Sequence similarities

Belongs to the peptidase T1B family.

**Cellular localization** 

Cytoplasm. Nucleus.

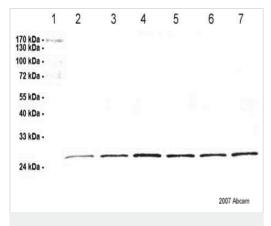
# **Images**



Western blot - Anti-Proteasome subunit beta type 2/PSMB2 antibody [MCP165] (ab22650)

Anti-Proteasome subunit beta type 2/PSMB2 antibody [MCP165] (ab22650) at 1/1000 dilution + HeLa cell lysate

Predicted band size: 23 kDa



Western blot - Anti-Proteasome subunit beta type 2/PSMB2 antibody [MCP165] (ab22650)

This image is courtesy of an Abreview submitted by Dr Matthias Zenkel Lane 1: Protein Marker IV

**Lanes 2-7:** Anti-Proteasome subunit beta type 2/PSMB2 antibody [MCP165] (ab22650) at 1/1000 dilution

Lane 1: Protein Marker IV

Lanes 2 & 4 & 6: Protein extract from ciliary body of diseased

human donor at 2 µg

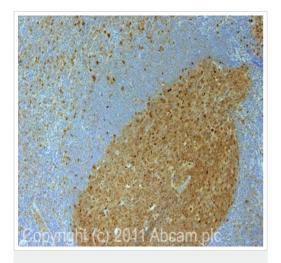
Lanes 3 & 5 & 7: Protein extract from ciliary body of normal

human donor at 2 µg

#### **Secondary**

Lanes 2-7: HRP conjugated goat anti mouse antibody

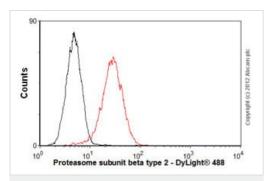
Predicted band size: 23 kDa Observed band size: 27 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Proteasome subunit beta type 2/PSMB2 antibody [MCP165] (ab22650)

IHC image of ab22650 staining in human normal lymphoid formalin fixed paraffin embedded tissue section, performed on a Leica Bond TM system using the standard protocol F. The section was pretreated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab22650, 1µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Flow Cytometry - Anti-Proteasome subunit beta type 2/PSMB2 antibody [MCP165] (ab22650)

Overlay histogram showing HeLa cells stained with ab22650 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab22650, 1µg/1x10<sup>6</sup> cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of

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