abcam

ab248944

Anti-Proteasome 20S beta 6 antibody [EPR9685] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR9685
Purification technique	Affinity purification
Concentration	1.028 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Not recommended

Species	Human, Mouse, Rat
Dilution info	-

Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information PSMB6

Function	Component of the 20S core proteasome complex involved in the proteolytic degradation of most intracellular proteins. This complex plays numerous essential roles within the cell by associating with different regulatory particles. Associated with two 19S regulatory particles, forms the 26S proteasome and thus participates in the ATP-dependent degradation of ubiquitinated proteins. The 26S proteasome plays a key role in the maintenance of protein homeostasis by removing misfolded or damaged proteins that could impair cellular functions, and by removing proteins whose functions are no longer required. Associated with the PA200 or PA28, the 20S proteasome mediates ubiquitin-independent protein degradation. This type of proteolysis is required in several pathways including spermatogenesis (20S-PA200 complex) or generation of a subset of MHC class I-presented antigenic peptides (20S-PA28 complex). Within the 20S core complex, PSMB6 displays a peptidylglutamyl-hydrolizing activity also termed postacidic or caspase-like activity, meaning that the peptides bond hydrolysis occurs directly after acidic residues.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab248944 is the carrier-free version of ab150366.

Patented technology

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Proteasome 20S beta 6 also known as PSMB6 is a subunit of the proteasome complex. It plays a significant role in the protein degradation process. Its molecular weight is around 25 kDa. The subunit gets expressed in various cell types throughout the body ensuring that proteins are effectively broken down into peptides. This is essential for maintaining protein homeostasis and recycling faulty proteins.
Biological function summary	The proteasome 20S beta 6 subunit forms part of the 20S core complex an important component of the proteasome. The proteasome operates as the main proteolytic machinery in both nucleus and cytoplasm. The 20S core complex pairs with the regulatory 19S cap to form the 26S proteasome. This assembly degrades ubiquitin-tagged proteins which regulates cell cycle progression apoptosis and DNA repair contributing to cellular function and health.
Pathways	Proteasome 20S beta 6 acts within the ubiquitin-proteasome pathway. This pathway regulates protein turnover affecting critical cellular processes such as cell cycle apoptosis and the immune response. The pathway also links with other proteins such as ubiquitin and E1 E2 and E3 ligases which modify proteins with ubiquitin chains to signal for their degradation.
Associated diseases and disorders	Proteasome 20S beta 6 may relate to cancer and neurodegenerative diseases like Alzheimer's. The abnormal regulation of the proteasome pathway can lead to the accumulation of undegraded proteins contributing to these diseases. PSMB6 interacts with proteins such as p53 a tumor suppressor protein highlighting its relevance to cell cycle control and cancer progression.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

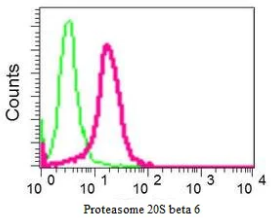
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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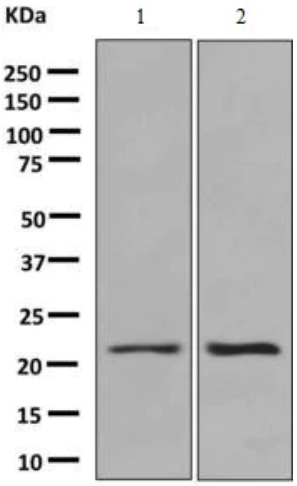
2 product images



Flow Cytometry (Intracellular) - Anti-Proteasome 20S beta 6 antibody [EPR9685] - BSA and Azide free (ab248944)

Proteasome 20S beta 6 Flow Cytometry (Intracellular) staining using rabbit Anti-Proteasome 20S beta 6 antibody

This data was developed using ab150366, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of permeabilized HeLa cells labelling Proteasome 20S beta 6 using ab150366 (red) or a rabbit IgG control (green).



Western blot - Anti-Proteasome 20S beta 6 antibody [EPR9685] - BSA and Azide free (ab248944)

This data was developed using ab150366, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-Proteasome 20S beta 6 antibody [EPR9685] (ab150366) at 1/1000 dilution

Lane 1:
Fetal liver lysate at 10 µg

Lane 2:
HeLa cell lysate at 10 µg

Secondary

All lanes:
HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 25 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.