abcam

ab181998

Anti-PSMD9 antibody [EPR12947]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR12947
Purification technique	Affinity purification Protein A
Concentration	1.691 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Predicted

Species	Rat, Mouse
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/500
Notes	-

Predicted

Species	Rat, Mouse
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/300
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Rat, Mouse
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/50 - 1/100
Notes	-

Predicted

Species	Rat, Mouse
Dilution info	-
Notes	-

Target data

See full target information 26S proteasome non-ATPase regulatory subunit 9

Function	Acts as a chaperone during the assembly of the 26S proteasome, specifically of the base subcomplex of the PA700/19S regulatory complex (RC). During the base subcomplex assembly is part of an intermediate PSMD9:PSMC6:PSMC3 module, also known as modulator trimer complex; PSMD9 is released during the further base assembly process.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

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.

Supplementary info

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

Activity summary	PSMD9 also known as 26S proteasome non-ATPase regulatory subunit 9 or Bridge-1 is a component of the 26S proteasome complex. This protein has a mass of approximately 49 kDa. It plays a role in regulating the degradation of ubiquitinated proteins through its function in the proteasome complex. The protein is expressed in multiple tissues including skeletal muscle and heart.
Biological function summary	PSMD9 participates in proteasomal degradation of intracellular proteins facilitating protein turnover and maintaining cellular homeostasis. It integrates into the 26S proteasome complex consisting of the 20S core particle and the 19S regulatory particle. Within the proteasome PSMD9 interacts with various subunits to regulate the recognition and unfolding of ubiquitinated substrates.
Pathways	PSMD9 plays an important role in the ubiquitin-proteasome pathway which is essential for protein regulation and quality control in cells. This pathway involves tagging proteins with ubiquitin for degradation. PSMD9 shows functional relationships with other proteasome subunits like PSMD4 and PSMD11 which participate in similar regulation processes.
Associated diseases and disorders	Dysfunction of the ubiquitin-proteasome pathway involving PSMD9 contributes to neurodegenerative diseases such as Alzheimer's disease and certain types of cancer. In Alzheimer's improper proteasomal activity can lead to the accumulation of damaged proteins. PSMD9's activity links it to other proteins implicated in these diseases including PSMD1 and the amyloid precursor protein in Alzheimer's disease.

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

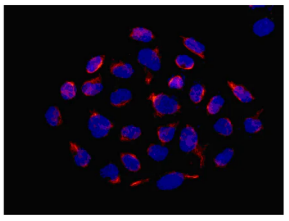
We do not recommend this combination. It is not covered by our product promise.

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.

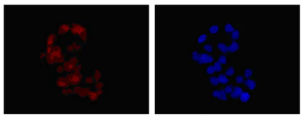
5 product images



Immunocytochemistry/ Immunofluorescence - Anti-PSMD9 antibody [EPR12947] (ab181998)

PSMD9 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-PSMD9 antibody

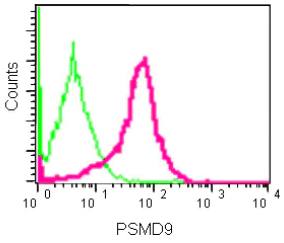
Immunofluorescent analysis of HeLa cells (-20°C acetone-fixed) labeling PSMD9 with ab181998 at 1/500 dilution followed by Goat anti rabbit IgG (Dylight 555) secondary and counter-stained with DAPI (blue).



Immunocytochemistry/ Immunofluorescence - Anti-PSMD9 antibody [EPR12947] (ab181998)

PSMD9 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-PSMD9 antibody

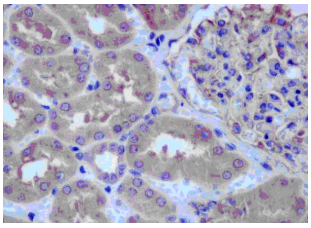
Immunofluorescent analysis of HepG2 cells (paraformaldehyde-fixed 4%) labeling PSMD9 with ab181998 at 1/500 dilution. A Goat anti rabbit IgG(Alexa Fluor® 555) was used as secondary antibody. Counterstained with DAPI (blue).



Flow Cytometry (Intracellular) - Anti-PSMD9 antibody [EPR12947] (ab181998)

PSMD9 Flow Cytometry (Intracellular) staining using rabbit Anti-PSMD9 antibody

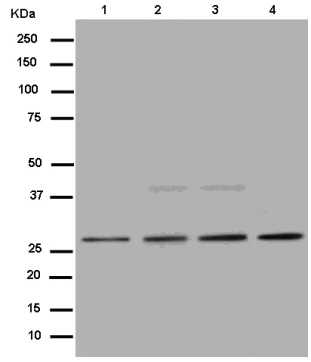
Intracellular flow cytometric analysis of HeLa cells (paraformaldehyde-fixed, 2%) labeling PSMD9with ab181998 at 1/300 dilution (red) or a rabbit IgG (negative) (green), followed by secondary Goat anti-rabbit IgG (FITC) at 1/150 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PSMD9 antibody [EPR12947] (ab181998)

PSMD9 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-PSMD9 antibody

Immunohistochemical analysis of paraffin-embedded Human kidney tissue labeling PSMD9 with ab181998 at 1/100 dilution followed by pre-diluted HRP-conjugated secondary antibody and counter-stained with Hematoxylin.
Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



Western blot - Anti-PSMD9 antibody [EPR12947] (ab181998)

All lanes:
Western blot - Anti-PSMD9 antibody [EPR12947] (ab181998) at 1/1000 dilution

Lane 1:
Human fetal liver tissue lysate at 20 µg

Lane 2:
HeLa cell lysate at 20 µg

Lane 3:
HepG2 cell lysate at 20 µg

Lane 4:
293 cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), HRP at 1/1000 dilution

Predicted band size: 25 kDa

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