abcam

ab248447

Anti-AVEN antibody [EPR4720] - 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	EPR4720
Purification technique	Affinity purification Protein A

Reactivity data

IHC-P

Tested

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

Target data

See full target information Cell death regulator Aven

Function	Protects against apoptosis mediated by Apaf-1.

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

ab248447 is the carrier-free version of ab133285.

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	AVEN also known as Apoptosis and Caspase Activation Inhibitor is a protein that acts to inhibit apoptotic cell death. It weighs approximately 36 kDa. Expression of AVEN occurs in several tissues including the brain heart and skeletal muscle. Inhibiting apoptosis helps cells survive under stress conditions making AVEN a target of interest for studying cell survival mechanisms.
Biological function summary	The protein serves to safeguard cells from apoptosis. It achieves this by preventing the activation of caspases which are important in the execution of programmed cell death. As part of an apoptosome complex AVEN interacts with apoptotic protease activating factor-1 (Apaf-1) to maintain cell viability under stress conditions and prevent early apoptosis.
Pathways	AVEN integrates into both intrinsic and extrinsic apoptotic pathways. In the intrinsic pathway it associates with proteins like Bcl-2 to maintain mitochondrial integrity and prevent release of cytochrome c. Within the extrinsic pathway AVEN influences Fas receptor-mediated caspase activation which further showcases its role in regulating cell death and survival decisions in response to external signals.
Associated diseases and disorders	AVEN expression exhibits implications in cancer and neurodegenerative disorders. Dysregulation of AVEN expression links to various cancers as its apoptosis-inhibiting function promotes tumor cell survival. Additionally AVEN interacts with proteins like Bcl-2 in neurodegenerative disorders such as Alzheimer’s where disrupted apoptosis is a critical factor. Understanding AVEN's function helps in advancing targeted therapies and diagnostics in these conditions.

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

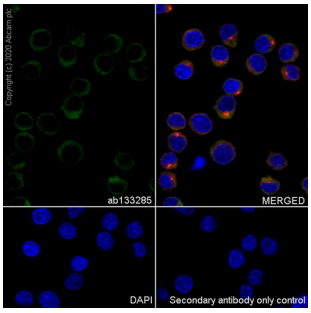
We do not recommend this combination. It is not covered by our product promise.

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.

6 product images

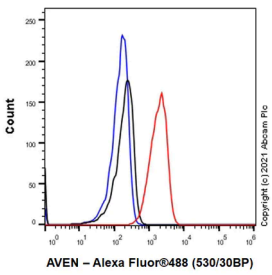


Immunocytochemistry/ Immunofluorescence - Anti-AVEN antibody [EPR4720] - BSA and Azide free (ab248447)

AVEN Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-AVEN antibody

This data was developed using ab133285, the same antibody clone in a different buffer formulation.

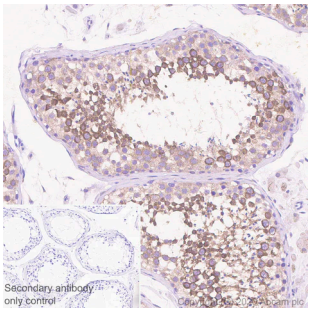
Immunocytochemistry analysis of Ramos (Human Burkitt's lymphoma B lymphocyte) cells labeling AVEN with purified ab133285 at 1/50 dilution (8.7 µg/mL). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/mL). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1/1000 (2 µg/mL) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Flow Cytometry - Anti-AVEN antibody [EPR4720] - BSA and Azide free (ab248447)

AVEN Flow Cytometry staining using rabbit Anti-AVEN antibody

This data was developed using ab133285, the same antibody clone in a different buffer formulation.
Flow Cytometry analysis of Ramos (Human Burkitt's lymphoma B lymphocyte) cells labelling AVEN with purified ab133285 at 1/40 dilution (10 µg/mL) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabelled control - Cell without incubation with primary antibody and secondary antibody (Blue).

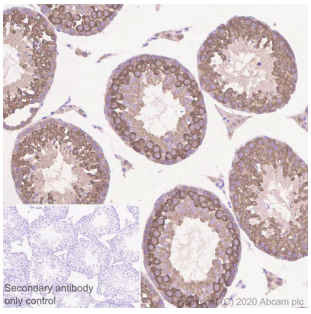


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-AVEN antibody [EPR4720] - BSA and Azide free (ab248447)

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

This data was developed using ab133285, the same antibody clone in a different buffer formulation.

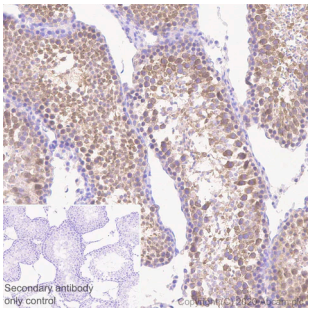
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human testis tissue sections labeling AVEN with purified ab133285 at 1/4000 dilution (0.11 µg/mL). Heat mediated antigen retrieval was performed using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Tissue was counterstained with Hematoxylin. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) secondary antibody was used. PBS instead of the primary antibody was used as the negative control.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-AVEN antibody [EPR4720] - BSA and Azide free (ab248447)

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

This data was developed using ab133285, the same antibody clone in a different buffer formulation.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse testis tissue sections labeling AVEN with purified ab133285 at 1/4000 dilution (0.11 µg/mL). Heat mediated antigen retrieval was performed using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Tissue was counterstained with Hematoxylin. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) secondary antibody was used. PBS instead of the primary antibody was used as the negative control.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

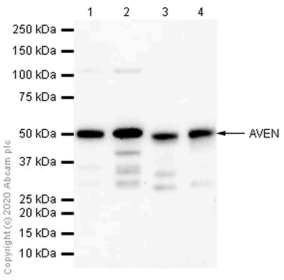


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-AVEN antibody [EPR4720] - BSA and Azide free (ab248447)

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

This data was developed using ab133285, the same antibody clone in a different buffer formulation.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat testis tissue sections labeling AVEN with purified ab133285 at 1/4000 dilution (0.11 µg/mL). Heat mediated antigen retrieval was performed using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Tissue was counterstained with Hematoxylin. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) secondary antibody was used. PBS instead of the primary antibody was used as the negative control.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument.



Western blot - Anti-AVEN antibody [EPR4720] - BSA and Azide free (ab248447)

All lanes:
Western blot - Anti-AVEN antibody [EPR4720] (ab133285) at 1/1000 dilution

Lane 1:
Ramos (Human Burkitt's lymphoma B lymphocyte) whole cell lysate at 20 µg

Lane 2:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 3:
RAW 264.7 (Mouse Abelson murine leukemia virus-induced tumor macrophage) whole cell lysate at 20 µg

Lane 4:
PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 39 kDa

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