abcam

ab307083

Anti-PEDF antibody [EPR25141-150]

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 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	EPR25141-150
Purification technique	Affinity purification Protein A
Concentration	0.576 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/500
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100 - 1/1000
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-Fr

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Rat

Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Human
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

WB

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information SERPINF1

Function	Neurotrophic protein; induces extensive neuronal differentiation in retinoblastoma cells. Potent inhibitor of angiogenesis. As it does not undergo the S (stressed) to R (relaxed) conformational transition characteristic of active serpins, it exhibits no serine protease inhibitory activity.

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

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.

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.

Supplementary info

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

Activity summary	PEDF also known as pigment epithelium-derived factor is a secreted glycoprotein with a mass of approximately 50 kDa. Its expression is highest in the retina and also occurs in several other tissues including liver and brain. PEDF has neurotrophic and neuroprotective properties. The PEDF protein works mechanically by interacting with receptors on cell surfaces to inhibit angiogenesis and promote neuronal survival and differentiation.
Biological function summary	PEDF plays a significant role in controlling angiogenesis due to its ability to inhibit excessive blood vessel formation. This makes PEDF essential in balancing the vasculature and nutrient availability in tissues. While PEDF does not form part of a larger protein complex its activity influences the biological interplay between cells by stabilizing the extracellular matrix and influencing cell signaling pathways involved in maintaining tissue homeostasis.
Pathways	PEDF interacts directly within the angiogenesis and neuroprotection pathways influencing cellular processes critical for normal tissue function. In angiogenesis PEDF disrupts the VEGF pathway by serving as an inhibitor thereby restricting uncontrolled vessel growth. It also plays a role in neuroprotection pathways where it cooperates with proteins like nerve growth factor to enhance neuronal survival and repair processes.
Associated diseases and disorders	PEDF relates significantly to diabetic retinopathy and cancer. PEDF's angiogenesis inhibition has therapeutic implications in diabetic retinopathy where unregulated blood vessel growth leads to vision loss. It also shows potential in cancer therapy by targeting tumor angiogenesis. In both conditions its interaction with VEGF is notable as it competes to modulate angiogenesis with potential consequences for disease progression and treatment strategies.

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

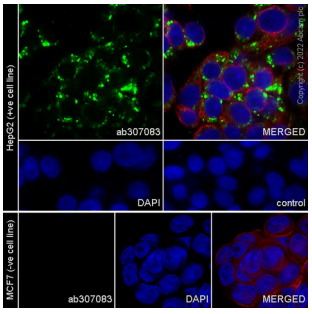
We do not recommend this combination. It is not covered by our product promise.

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.

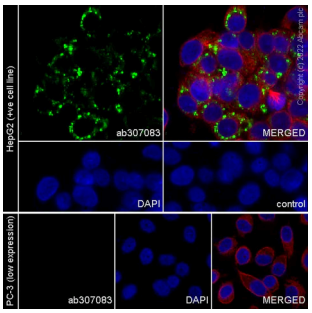
Full details and terms and conditions can be found here:
Terms & Conditions.

3 product images



Immunocytochemistry/ Immunofluorescence - Anti-PEDF antibody [EPR25141-150] (ab307083)

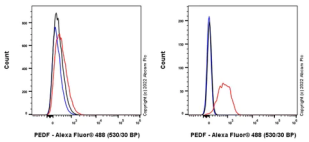
Immunofluorescent analysis of 100% methanol-fixed, 0.1% Triton X-100 permeabilized HepG2 (human hepatocellular carcinoma epithelial cell) cells labeling PEDF with ab307083 at 1/100 dilution (5.76 ug/ml), followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (2 ug/ml) (Green). Confocal image showing cytoplasmic staining in HepG2 cell line. Negative control: MCF7 (PMID: 16740777). Image was taken with a confocal microscope(Leica-Microsystems, TCS SP8). ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (2.5 ug/ml) dilution (Red). The nuclear counterstain was DAPI (Blue). Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (2 ug/ml).



Immunocytochemistry/ Immunofluorescence - Anti-PEDF antibody [EPR25141-150] (ab307083)

Immunofluorescent analysis of 100% methanol-fixed, 0.1% Triton X-100 permeabilized HepG2 (human hepatocellular carcinoma epithelial cell) cells labeling PEDF with ab307083 at 1/100 dilution (5.76 ug/ml), followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (2 ug/ml) (Green). Confocal image showing cytoplasmic staining in HepG2 cell line. Low expression control: PC-3 (PMID:16740777). Image was taken with a confocal microscope(Leica-Microsystems, TCS SP8). ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at

1/200 dilution (2.5 ug/ml) (Red). The nuclear counterstain was DAPI (Blue). Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (2 ug/ml).



Flow Cytometry (Intracellular) - Anti-PEDF antibody [EPR25141-150] (ab307083)

Flow cytometric analysis of 80% methanol fixed 0.1% Tween-20 permeabilized PC-3 (human prostate adenocarcinoma epithelial cell, Left) / HepG2 (human hepatocellular carcinoma epithelial cell, Right) cells labeling PEDF with ab307083 at 1/500 dilution (0.1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as the secondary antibody. Low expression control: PC-3 (PMID: 16740777).

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