abcam

ab201464

Anti-AG-3 antibody [EPR19606]

Recombinant | RabMAb

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	EPR19606
Purification technique	Affinity purification Protein A
Concentration	0.675 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	-

ICC/IF

Tested

Species	Human
Dilution info	1/500
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/600
Notes	-

Target data

See full target information AGR3

Function	Required for calcium-mediated regulation of ciliary beat frequency and mucociliary clearance in the airway. Might be involved in the regulation of intracellular calcium in tracheal epithelial cells.

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	AG-3 also known as protein AG is a protein of about 45 kDa. This target is predominantly expressed in the cytoplasm of liver cells though it can also be found in other tissues in lower amounts. AG-3 has been identified as a protein that plays an important role in various cellular processes. Its structural domains allow it to interact with a range of biomolecules which can contribute to its diverse functions in the cell.
Biological function summary	AG-3 enables essential cellular processes such as signal transduction and metabolic regulation. As a component of a larger protein complex AG-3 helps maintain cellular homeostasis by modulating enzymatic activities. Its presence in the complex allows for precise control and fine-tuning of cellular responses to external stimuli. Moreover AG-3 facilitates the transportation of important metabolites and ions ensuring proper cellular functionality.
Pathways	AG-3 significantly contributes to the MAPK signaling pathway and the insulin signaling pathway. Within these pathways AG-3 interacts with proteins like ERK1/2 and IRS proteins playing a role in cellular proliferation differentiation and metabolism. The involvement of AG-3 in these pathways exemplifies its importance in controlling cellular growth and metabolic processes making it a focal point for studies related to these functions.
Associated diseases and disorders	AG-3 is linked to conditions like type 2 diabetes and liver diseases. Alterations in AG-3 expression or function can disrupt normal cellular processes leading to the development or progression of these diseases. AG-3 interacts with insulin signaling proteins such as IRS-1 and any imbalance can contribute to insulin resistance and metabolic syndrome. Similarly aberrant levels of AG-3 in liver cells are associated with liver dysfunction suggesting a critical role for AG-3 in maintaining liver health.

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.

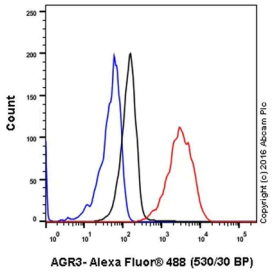
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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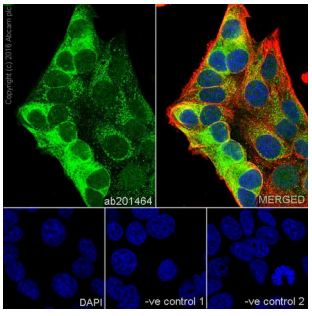
3 product images



Flow Cytometry (Intracellular) - Anti-AG-3 antibody [EPR19606] (ab201464)

AG-3 Flow Cytometry (Intracellular) staining using rabbit Anti-AG-3 antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed MCF7 (Human breast adenocarcinoma cell line) cells labeling AG-3 with ab201464 at 1/600 dilution (red) compared with a rabbit monoclonal IgG isotype control (ab172730; black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody; blue). Goat Anti-Rabbit IgG (Alexa Fluorr® 488) at 1/2000 dilution was used as the secondary antibody.

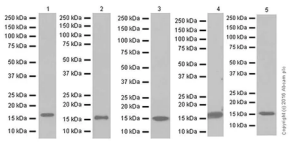


Immunocytochemistry/ Immunofluorescence - Anti-AG-3 antibody [EPR19606] (ab201464)

AG-3 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-AG-3 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed 0.1% Triton X-100 permeabilized MCF7 (Human breast adenocarcinoma cell line) cells labeling AG-3 with ab201464 at 1/500 dilution followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic staining on MCF7 cells. The nuclear counter stain is DAPI (blue).
Tubulin is detected with Anti-alpha Tubulin mouse MAb (ab7291) at 1/1000 dilution followed by Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) (ab150120) secondary antibody at 1/1000 dilution (red).

The negative controls are as follows:
-ve control 1: ab201464 at 1/500 dilution followed by Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) (ab150120) secondary antibody at 1/1000 dilution.
-ve control 2: Anti-alpha Tubulin mouse MAb (ab7291) at 1/1000 dilution followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution.



Western blot - Anti-AG-3 antibody [EPR19606] (ab201464)

AG-3 Western blot staining using rabbit Anti-AG-3 antibody

Blocking/Dilution buffer: 5% NFDM/TBST.
Exposure times: Lane 1/5: 15 seconds; Lane 2-4: 3 minutes.

Lanes 1 and 5:
Western blot - Anti-AG-3 antibody [EPR19606] (ab201464) at 1/2000 dilution

Lane 2:
Western blot - Anti-AG-3 antibody [EPR19606] (ab201464) at 1/10000 dilution

Lanes 3 - 4:
Western blot - Anti-AG-3 antibody [EPR19606] (ab201464) at 1/1000 dilution

Lane 1:
MCF7 (Human breast adenocarcinoma cell line) whole cell lysate at 10 µg

Lane 2:
T-47D (Human ductal breast epithelial tumor cell line) whole cell lysate at 10 µg

Lane 3:
Human colon cancer tissue lysate at 10 µg

Lane 4:
Human breast cancer tissue lysate at 10 µg

Lane 5:
Human ovary cancer tissue lysate at 10 µg

Secondary

Lanes 1 - 2:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Lanes 3 - 5:
Goat Anti-Rabbit IgG Peroxidase Conjugate, specific to the non-reduced form of IgG at 1/10000 dilution

Predicted band size: 19 kDa

Observed band size: 19 kDa

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