abcam

ab267464

Anti-Apo-H antibody [EPR23087-228]

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	EPR23087-228
Purification technique	Affinity purification Protein A
Concentration	0.471 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	In Western blot analysis, ab108348 exhibited lower sensitivity compared to ab267464, for which reason we recommend ab108348 as superior alternative. Protocol optimizations including increased protein loading (30-50 µg/lane), reduced primary antibody dilution (1:500), and fg-grade ECL substrates are suggested if ab267464 must be used.

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/500
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/500
Notes	-

Target data

See full target information APOH

Function	Binds to various kinds of negatively charged substances such as heparin, phospholipids, and dextran sulfate. May prevent activation of the intrinsic blood coagulation cascade by binding to phospholipids on the surface of damaged 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	Apolipoprotein H (Apo-H) also known as β2-glycoprotein I functions mechanically as a plasma protein. It has a molecular weight of approximately 50 kDa and it is mostly expressed in the liver. Apo-H plays a role in the body's immune and coagulation systems binding to anionic surfaces such as phospholipids and preventing blood coagulation. Its ability to interact with negatively charged molecules makes it important in the modulation of the coagulation cascade helping maintain balance between bleeding and clotting.

Biological function summary	Apo-H acts as an anticoagulant and participates in the modulation of immune response. It forms complexes with lipid-bound proteins facilitating the clearance of these complexes from the bloodstream. This interaction is key in processes like platelet aggregation and stabilization of membranes. Apo-H also influences the removal of oxidized proteins and lipids reducing cellular stress and preventing tissue damage.
Pathways	Apo-H plays a critical role in the coagulation cascade and lipid metabolism. It interacts with proteins such as prothrombin and fibrinogen influencing blood coagulation pathways. Apo-H's involvement in the clearance of apoptotic cells integrates into the lipid metabolic pathway highlighting its relationship with apolipoproteins and other lipid-related proteins. These interactions illustrate the multi-functional aspects of Apo-H within these pathways.
Associated diseases and disorders	Apo-H associates with antiphospholipid syndrome and cardiovascular diseases. These conditions arise from its role in coagulation and immune response where disruptions can lead to increased risk of thrombosis. The protein's interaction with other apolipoproteins such as Apo-A1 highlights possible implications in lipid metabolism disorders which in turn can exacerbate cardiovascular risk. Understanding these associations provides insights into potential therapeutic targets for treating these diseases.

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

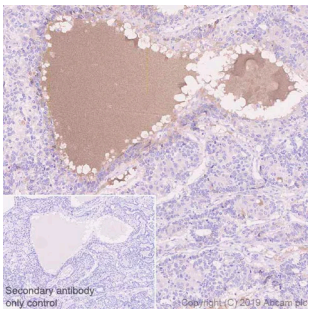
We do not recommend this combination. It is not covered by our product promise.

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.

8 product images

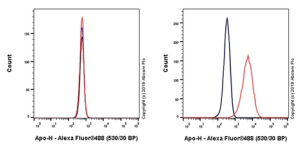


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Apo-H antibody [EPR23087-228] (ab267464)

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

Immunohistochemical analysis of paraffin-embedded Human hepatocellular carcinoma tissue labeling Apo-H with ab267464 at 1/500 dilution (0.94 ug/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining on plasma in human hepatocellular carcinoma. The section was incubated with ab267464 for 15 mins at RT. The immunostaining staining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.
Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

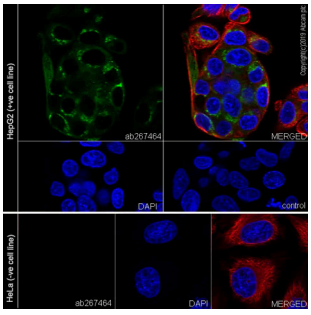
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.



Flow Cytometry (Intracellular) - Anti-Apo-H antibody [EPR23087-228] (ab267464)

Apo-H Flow Cytometry (Intracellular) staining using rabbit Anti-Apo-H antibody

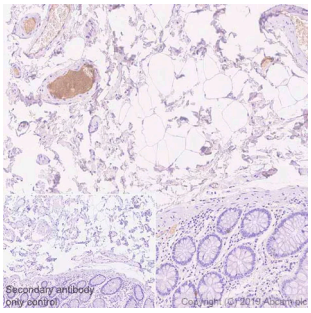
Intracellular flow cytometric analysis of 4% paraformaldehyde fixed, 90% methanol permeabilized HeLa (human cervix adenocarcinoma epithelial cell, Left) / HepG2 (human hepatocellular carcinoma epithelial cell, Right) cells labelling Apo-H with ab267464 at 1/500 dilution (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.
Negative control: HeLa (PMID: 14984368).



Immunocytochemistry/ Immunofluorescence - Anti-Apo-H antibody [EPR23087-228] (ab267464)

Apo-H Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Apo-H antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized HepG2 (human hepatocellular carcinoma epithelial cell) cells labelling Apo-H with ab267464 at 1/100 dilution, followed by ab150077 AlexaFluor®488 Goat anti-Rabbit secondary antibody at 1/1000 dilution (Green). Confocal image showing cytoplasmic staining in HepG2 cell line, and no staining in Hela cells. **Negative control:** Hela (PMID: 14984368). ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The Nuclear counterstain was DAPI (Blue).
Secondary antibody only control: Secondary antibody is ab150077 AlexaFluor®488 Goat anti-Rabbit secondary at 1/1000 dilution.

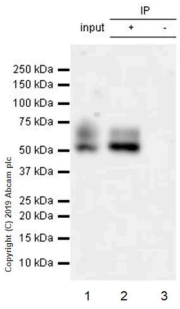


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Apo-H antibody [EPR23087-228] (ab267464)

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

Immunohistochemical analysis of paraffin-embedded Human colon tissue labeling Apo-H with ab267464 at 1/500 dilution (0.94 ug/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining on plasma in human colon. The section was incubated with ab267464 for 15 mins at RT. The immunostaining staining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.
Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.



Immunoprecipitation - Anti-Apo-H antibody [EPR23087-228] (ab267464)

Apo-H was immunoprecipitated from 0.35 mg HepG2 (human hepatocellular carcinoma epithelial cell) whole cell lysate with ab267464 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab267464 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used at 1/1000 dilution.
Lane 1: HepG2 (human hepatocellular carcinoma epithelial cell) whole cell lysate 10ug

Lane 2: ab267464 IP in HepG2 whole cell lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab267464 in HepG2 whole cell lysate

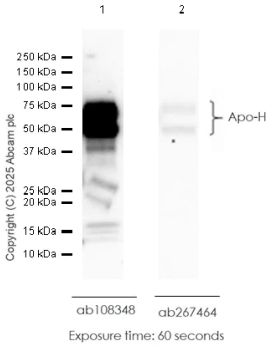
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 30 seconds

All lanes:
Immunoprecipitation - Anti-Apo-H antibody [EPR23087-228] (ab267464)

Predicted band size: 38 kDa

Observed band size: 50 kDa, 60 kDa



Western blot - Anti-Apo-H antibody [EPR23087-228] (ab267464)

Apo-H Western blot staining using rabbit Anti-Apo-H antibody

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/1000000 dilution.

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

In Western blot analysis, ab108348 exhibited lower sensitivity compared to ab267464, for which reason we recommend ab108348 as superior alternative.

Protocol optimizations including increased protein loading (30-50 µg/lane), reduced primary antibody dilution (1:500), and fg-grade ECL substrates are suggested if ab267464 must be used.

Lane 1:

Western blot - Anti-Apo-H antibody [EPR2898(2)] (ab108348) at 1/1000 dilution

Lane 2:
Western blot - Anti-Apo-H antibody [EPR23087-228] (ab267464) at 1/1000 dilution

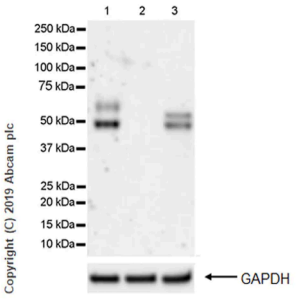
All lanes:
HepG2 (human hepatocellular carcinoma epithelial cell) whole cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Observed band size: 50 kDa, 60 kDa

Exposure time: 60s



Western blot - Anti-Apo-H antibody [EPR23087-228] (ab267464)

Apo-H Western blot staining using rabbit Anti-Apo-H antibody

Blocking and dilution buffer: 5% NFDM/TBST.
Exposure time: 147 seconds.

The molecular weight observed is consistent with what has been described in the literature (PMID: 30894461)

Negative control: Hela (PMID: 14984368).

All lanes:
Western blot - Anti-Apo-H antibody [EPR23087-228] (ab267464) at 1/1000 dilution

Lane 1:
HepG2 (human hepatocellular carcinoma epithelial cell) whole cell lysate at 20 µg

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

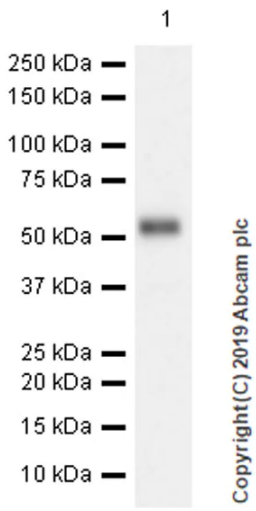
Lane 3:
Human liver lysate at 20 µg

Secondary

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

Predicted band size: 38 kDa

Observed band size: 50 kDa, 60 kDa



Western blot - Anti-Apo-H antibody [EPR23087-228] (ab267464)

Apo-H Western blot staining of Human plasma using rabbit Anti-Apo-H antibody

Blocking and dilution buffer: 5% NFDM/TBST.
Exposure time: 180 seconds.

The molecular weight observed is consistent with what has been described in the literature (PMID: 30894461).

All lanes:
Western blot - Anti-Apo-H antibody [EPR23087-228] (ab267464) at 1/1000 dilution

All lanes:
Human plasma at 20 µg

Secondary

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

Predicted band size: 38 kDa

Observed band size: 50 kDa

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