abcam

ab275091

Anti-FGL1 antibody [EPR24018-27]

Recombinant | RabMAb | KO Validated | 20ul selling size

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	EPR24018-27
Purification technique	Affinity purification Protein A
Concentration	0.516 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/50
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/500
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

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.

Target data

See full target information FGL1

Function	Immune suppressive molecule that inhibits antigen-specific T-cell activation by acting as a ligand of LAG3 (PubMed:30580966, PubMed:35761082, PubMed:40101708). LAG3-binding initiates a signaling that inhibits the T-cell receptor (TCR) in the immunological synapse, preventing T-cell activation (PubMed:30580966). Binds LAG3 independently from MHC class II (MHC-II) (PubMed:30580966, PubMed:35761082). Secreted by, and promotes growth of, hepatocytes (PubMed:11470158, PubMed:19880967).

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	Fibrinogen-like protein 1 (FGL1) also known as Hepassocin plays a significant role in modulating immune responses. FGL1 is a member of the fibrinogen family with a molecular mass of approximately 31 kDa. This protein is widely expressed in the liver and is also found in other tissues like the pancreas and lungs. Its structural homology to fibrinogen suggests potential binding capabilities with similar ligands influencing its mechanical actions in cellular processes.
Biological function summary	FGL1 modulates the immune system and maintains its homeostasis. It functions primarily as a ligand for the immune checkpoint receptor LAG-3. This FGL1-LAG-3 interaction inhibits T-cell activity leading to immune tolerance and helping prevent autoimmunity. FGL1 while not a part of a complex demonstrates significant standalone biological activity by affecting immune responses especially under pathological conditions.

Pathways	FGL1 integrates into the immune regulatory framework. It exerts its effects mainly through the immune checkpoint pathway impacting T-cell regulation. In addition to LAG-3 FGL1 interacts closely with the PD-1/PD-L1 pathway which is also important in checkpoint inhibition and immune evasion mechanisms. These pathways together orchestrate the immune surveillance system and play roles in maintaining immune equilibrium.
Associated diseases and disorders	FGL1 has received attention in cancer particularly in its role of suppressing anti-tumor immunity. Its interaction with LAG-3 makes it a potential target for cancer immunotherapy as high FGL1 levels correlate with poor prognosis in various cancers. Additionally it has implications in autoimmune diseases where its regulation of T-cell activity prevents excessive immune responses. By modulating LAG-3 activity FGL1 emerges as a therapeutic target of interest in autoimmune conditions presenting new opportunities for managing such disorders.

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

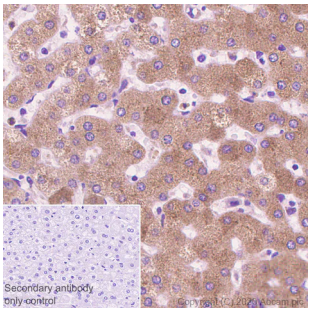
We do not recommend this combination. It is not covered by our product promise.

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.

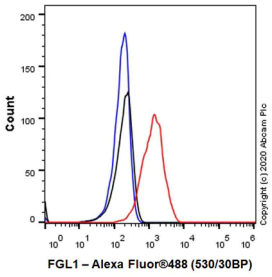
8 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FGL1 antibody [EPR24018-27] (ab275091)

Immunohistochemical analysis of paraffin-embedded human liver tissue labeling FGL1 with ab275091 at 1/500 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Cytoplasmic staining in human liver (PMID: 11470158). The section was incubated with ab275091 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.
Secondary antibody only control: Secondary antibody is ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

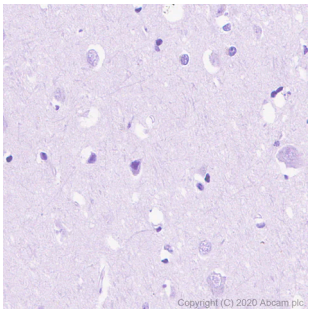
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



Flow Cytometry (Intracellular) - Anti-FGL1 antibody [EPR24018-27] (ab275091)

FGL1 Flow Cytometry (Intracellular) staining using rabbit Anti-FGL1 antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized HepG2 (Human hepatocellular carcinoma epithelial cell) cells labelling FGL1 with ab275091 at 1/50 dilution (1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) isotype control (Black) 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.

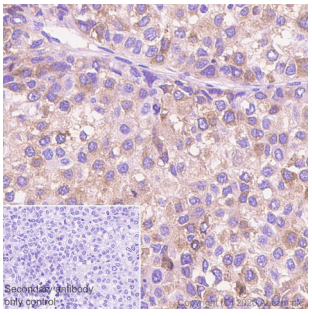


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FGL1 antibody [EPR24018-27] (ab275091)

FGL1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-FGL1 antibody

Immunohistochemical analysis of paraffin-embedded human cerebrum tissue labeling FGL1 with ab275091 at 1/500 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). **Negative control:** No staining in human cerebrum (PMID: 14981537). The section was incubated with ab275091 for 30 mins at room temperature. The immunostaining 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 solution2) for 20 mins.



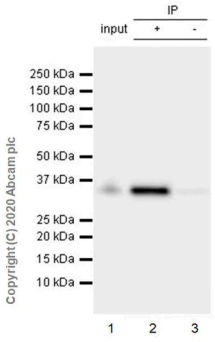
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FGL1 antibody [EPR24018-27] (ab275091)

FGL1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-FGL1 antibody

Immunohistochemical analysis of paraffin-embedded human hepatocellular carcinoma tissue labeling FGL1 with ab275091 at 1/500 dilution followed by a ready to use Rabbit specific IHC

polymer detection kit HRP/DAB (ab209101). Cytoplasmic staining in human hepatocellular carcinoma (PMID: 14981537). The section was incubated with ab275091 for 30 mins at room temperature. The immunostaining 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 solution2) for 20 mins.



Immunoprecipitation - Anti-FGL1 antibody [EPR24018-27] (ab275091)

FGL1 was immunoprecipitated from 0.35 mg HepG2 (human hepatocellular carcinoma epithelial cell) whole cell lysate with ab275091 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab275091 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP)(ab131366) was used at 1/5000 dilution.
Lane 1: HepG2 (human hepatocellular carcinoma epithelial cell) whole cell lysate 10 ug

Lane 2: ab275091 IP in HepG2 whole cell lysate

Lane 3: Rabbit monoclonal IgG (ab172730) instead of abID1 in HepG2 whole cell lysate

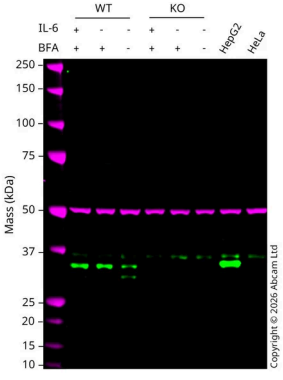
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 seconds.

All lanes:
Immunoprecipitation - Anti-FGL1 antibody [EPR24018-27] (ab275091)

Predicted band size: 36 kDa

Observed band size: 34 kDa



Western blot - Anti-FGL1 antibody [EPR24018-27] (ab275091)

FGL1 Western blot staining using rabbit Anti-FGL1 antibody

Western blot: Rabbit Monoclonal [EPR24018-27] to FGL1 ab275091 staining at 1/1000 dilution, shown in green; Mouse anti alpha Tubulin ab7291 loading control staining at 1/20000 dilution, shown in magenta. A band was observed at 36 kDa. To generate this image, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3pc Milk in TBS-0.1 % Tween 20 (TBS-T) before incubation with primary antibodies overnight at 4 C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit 800CW and Goat anti-Mouse 680RD at 1/20,000 dilution.
All lanes:
Western blot - Anti-FGL1 antibody [EPR24018-27] (ab275091) at 1/1000 dilution

Lane 1:
Wild-type A549 IL-6 (5 ng/mL, 48 h) + BFA (5 g/mL, last 6 h) at 20 µg

Lane 2:
Wild-type A549 IL-6 (0 ng/mL, 48 h) + BFA (5 g/mL, last 6 h) at 20 µg

Lane 3:
Wild-type A549 BFA (0 g/mL, 6 h) at 20 µg

Lane 4:
FGL1 knockout A549 IL-6 (5 ng/mL, 48 h) + BFA (5 g/mL, last 6 h) at 20 µg

Lane 5:
FGL1 knockout A549 IL-6 (0 ng/mL, 48 h) + BFA (5 g/mL, last 6 h) at 20 µg

Lane 6:
FGL1 knockout A549 BFA (0 g/mL, 6 h) at 20 µg

Lane 7:
HepG2 at 20 µg

Lane 8:
HeLa at 20 µg

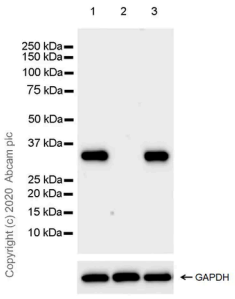
Secondary

All lanes:
Goat anti-Rabbit 800CW & Goat anti-Mouse 680RD at 1/20000 dilution

Performed under reducing conditions.

Predicted band size: 36 kDa

Observed band size: 36 kDa



Western blot - Anti-FGL1 antibody [EPR24018-27] (ab275091)

FGL1 Western blot staining using rabbit Anti-FGL1 antibody

Blocking and dilution buffer: 5% NFDM/TBST.
Exposure time: 15 seconds.

The molecular weight observed is consistent with what has been described in the literature (PMID: 11004478).

Negative control: Human brain (PMID: 11470158).

All lanes:
Western blot - Anti-FGL1 antibody [EPR24018-27] (ab275091) at 1/1000 dilution

Lane 1:
Human liver tissue lysate at 20 µg

Lane 2:
Human brain tissue lysate at 20 µg

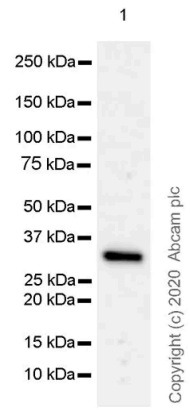
Lane 3:
HepG2 (human hepatocellular carcinoma epithelial cell) whole cell lysate at 20 µg

Secondary

All lanes:
VeriBlot for IP secondary antibody(HRP)(ab131366) at 1/1000 dilution

Predicted band size: 36 kDa

Observed band size: 34 kDa



Western blot - Anti-FGL1 antibody [EPR24018-27] (ab275091)

FGL1 Western blot staining of Huh7 (human hepatocellular carcinoma epithelial cell) whole cell lysate using rabbit Anti-FGL1 antibody

Blocking and dilution buffer: 5% NFDM/TBST.
Exposure time: 3 minutes.

All lanes:
Western blot - Anti-FGL1 antibody [EPR24018-27] (ab275091) at 1/1000 dilution

All lanes:
Huh7 (human hepatocellular carcinoma epithelial cell) whole cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/50000 dilution

Predicted band size: 36 kDa

Observed band size: 34 kDa

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