abcam

ab305060

Anti-GPVI antibody [EPR25690-60]

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	EPR25690-60
Purification technique	Affinity purification Protein A
Concentration	0.477 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

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

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.

IHC-Fr

Not recommended

Species	Mouse, Human, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-

Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	1/500
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information GP6

Function	Collagen receptor involved in collagen-induced platelet adhesion and activation. Plays a key role in platelet procoagulant activity and subsequent thrombin and fibrin formation. This procoagulant function may contribute to arterial and venous thrombus formation. The signaling pathway involves the FcR gamma-chain, the Src kinases (likely FYN or LYN) and SYK, the adapter protein LAT and leads to the activation of PLCG2.

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	GPVI or glycoprotein VI functions mechanically as a collagen receptor on the surface of platelets. With a molecular mass around 62 kDa it is expressed mainly on megakaryocytes and platelets. GPVI plays an important role in platelet adhesion and activation by binding to collagen exposed at sites of vascular injury. This interaction initiates a cascade of platelet activation essential for normal hemostasis.
Biological function summary	The target participates in the formation of platelet activation complexes. GPVI partners with the Fc receptor γ-chain to transmit activation signals upon collagen binding. This process results in platelet shape change granule secretion and aggregation which are all critical steps for clot formation. By interacting with collagen GPVI ensures that platelets can effectively respond to vascular damage particularly in arterial vessels where high shear forces prevail.
Pathways	The glycoprotein VI contributes significantly to the immune and coagulation pathways. It activates the enzyme Syk kinase following collagen binding which further triggers the downstream signaling pathways like the MAPK pathway

	leading to platelet activation. GPVI works closely with other receptors like integrin α2β1 and the glycoprotein Ib/V/IX complex reinforcing platelet-collagen interactions and stabilizing the platelet plug formation during thrombus growth.
Associated diseases and disorders	Glycoprotein VI shows relevance in cardiovascular diseases and immune thrombocytopenia. Abnormal GPVI function or expression can exacerbate conditions such as myocardial infarction by promoting excessive platelet activation and thrombosis. Conversely reduced GPVI levels relate to bleeding disorders due to impaired platelet function. Studies have also linked GPVI to autoimmune conditions where antibodies may target it similar to responses in immune thrombocytopenia.

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

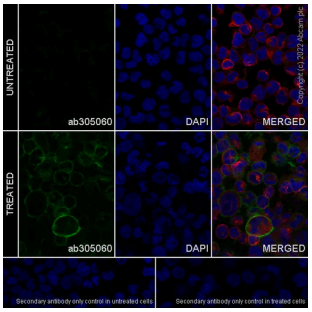
We do not recommend this combination. It is not covered by our product promise.

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.

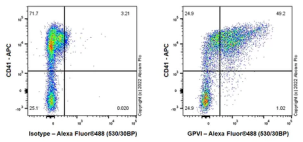
2 product images



Immunocytochemistry - Anti-GPVI antibody [EPR25690-60] (ab305060)

GPVI Immunocytochemistry staining of HEL (human erythroleukemia erythroblast) using rabbit Anti-GPVI antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized HEL (human erythroleukemia erythroblast) cells labelling GPVI with ab305060 at 1/100 (4.77 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2 ug/mL dilution (Green). Confocal image showing increased membranal and cytoplasmic staining in HEL cells treated with Phorbol-12-myristate-13-acetate (10 nM) for 48 hours.Image was taken with a confocal microscope(Leica-Microsystems, TCS SP8) is observed. ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 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 2 ug/mL dilution.



Flow Cytometry - Anti-GPVI antibody [EPR25690-60] (ab305060)

GPVI Flow Cytometry staining of Human peripheral blood mononuclear cell (PBMC) using rabbit Anti-GPVI antibody

Flow cytometric analysis of Human peripheral blood mononuclear cell (PBMC) cells labelling GPVI with ab305060 at 1/500 dilution (0.1ug)/ Right compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as the secondary antibody. Gated on viable cells.Cells were stained with rabbit IgG or ab305060. Then stained with anti-CD41 conjugated to Alexa Fluor® 647.

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