abcam

Product datasheet

Anti-CD42b antibody [AK2] ab61402

Recombinant

1 References 7 Images

Overview

Product name	Anti-CD42b antibody [AK2]
Description	Mouse monoclonal [AK2] to CD42b
Host species	Mouse
Tested applications	**Suitable for:** ICC/IF, Flow Cyt, IHC-Fr
Species reactivity	**Reacts with:** Mouse, Human
Immunogen	Tissue, cells or virus corresponding to Human CD42b. Human platelets.
Positive control	IHC-Fr: Human Spleen frozen tissue sections. Flow Cyt: Human whole blood and PBMCs. ICC/IF: HEL and Mouse splenocyte cells.
General notes	This product has switched from a hybridoma to recombinant production method on 08th March 2021. Clone AK2 has been reported to block the binding of von Willebrand Factor (VWF) to platelets. 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 production For more information **see here**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Primary antibody notes	Clone AK2 has been reported to block the binding of von Willebrand Factor (VWF) to platelets.
Clonality	Monoclonal

Clone number	AK2
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab61402 in the following tested applications.

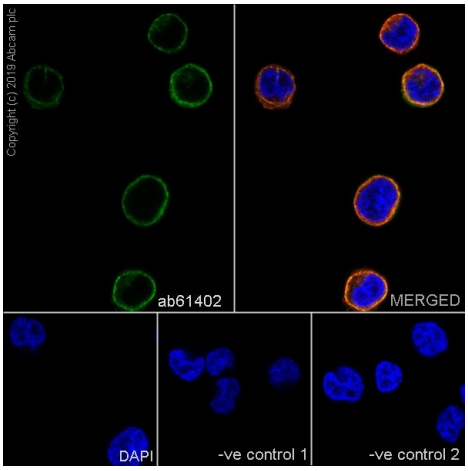
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		1/100.
Flow Cyt		Use a concentration of 10 µg/ml.
IHC-Fr		Use a concentration of 1 µg/ml.

Target

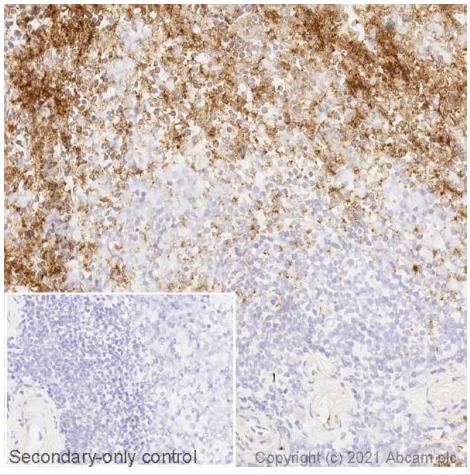
Function	GP-Ib, a surface membrane protein of platelets, participates in the formation of platelet plugs by binding to the A1 domain of vWF, which is already bound to the subendothelium.
Involvement in disease	Non-arteritic anterior ischemic optic neuropathy Bernard-Soulier syndrome Bernard-Soulier syndrome A2, autosomal dominant Pseudo-von Willebrand disease
Sequence similarities	Contains 7 LRR (leucine-rich) repeats. Contains 1 LRRCT domain. Contains 1 LRRNT domain.
Post-translational modifications	Glycocalicin, which is approximately coextensive with the extracellular part of the molecule, is cleaved off by calpain during platelet lysis.
Cellular localization	Membrane.

Images



Immunocytochemistry/ Immunofluorescence - Anti-CD42b antibody [AK2] (ab61402)

Immunocytochemistry analysis of HEL (human Erythroleukemia erythroblast) labelling CD42b with ab61402 at 1/100 (6.3 µg/mL). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Goat anti Mouse IgG (Alexa Fluor® 488, **ab150113**) was used as the secondary antibody at 1/1000 (2 µg/mL) dilution. Cells were counterstained with **ab179504** Anti-beta IV Tubulin antibody - Microtubule Marker 1/1000 (1 µg/mL), followed by Goat anti-Rabbit, AlexaFluor®594 **ab150080** at 1/1000 (2 µg/mL) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.
Confocal image showing membranous staining in HEL cells.

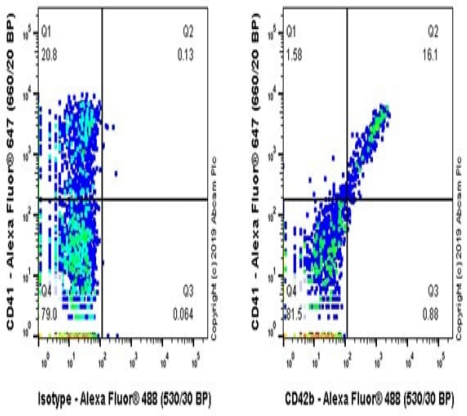


Immunohistochemistry (Frozen sections) - Anti-CD42b antibody [AK2] (ab61402)

Immunohistochemistry image of CD42b staining in a section of frozen normal human spleen performed on a Leica BOND™ system using the standard protocol.

The section was fixed in 10% paraformaldehyde (10 min) prior to staining. The section was incubated with ab61402, 1µg/ml, for 15 mins at room temperature and detected using an HRP conjµgated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody.

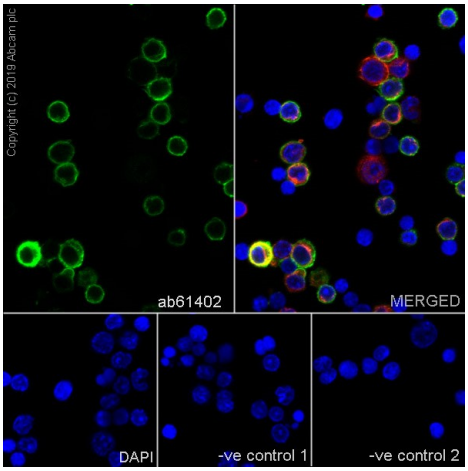
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions,primary antibody concentration and antibody incubation times.



Flow Cytometry - Anti-CD42b antibody [AK2] (ab61402)

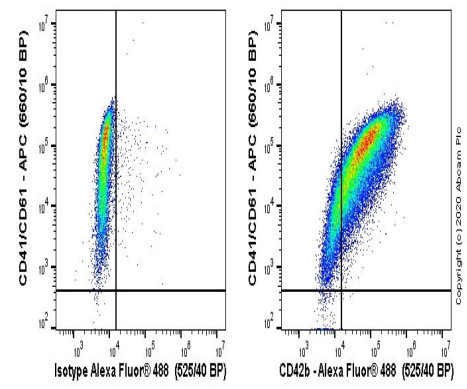
Flow cytometry staining of Human peripheral blood mononuclear cell (PBMC) with ab61402 (right) or mouse IgG isotype control (left) at 1/500 dilution, followed by Goat anti mouse IgG (Alexa Fluor® 488, **ab150113**) at 1/2000 dilution. Cells were stained with mouse IgG (Left) or ab61402 (Right). Then stained with anti-CD41 conjugated to APC.

Gated on viable cells.



Immunocytochemistry/ Immunofluorescence - Anti-CD42b antibody [AK2] (ab61402)

Immunocytochemistry analysis of Mouse splenocytes labelling CD42b with ab61402 at 1/100 (6.3 µg/mL). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Goat anti Mouse IgG (Alexa Fluor® 488, **ab150113**) was used as the secondary antibody at 1/1000 (2 µg/mL) dilution. Cells were counterstained with **ab179504** Anti-beta IV Tubulin antibody - Microtubule Marker 1/1000 (1 µg/mL), followed by Goat anti-Rabbit, AlexaFluor®594 **ab150080** at 1/1000 (2 µg/mL) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control. Confocal image showing membranous staining in mouse splenocytes.



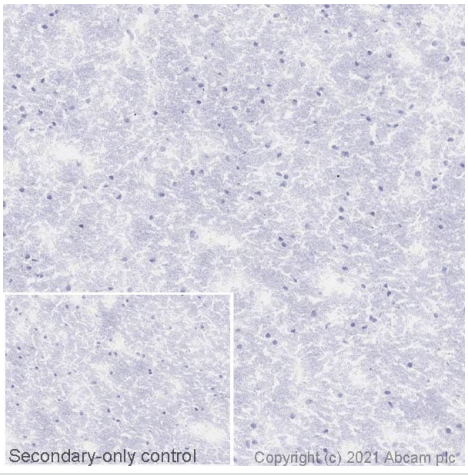
Flow Cytometry - Anti-CD42b antibody [AK2] (ab61402)

Flow cytometry staining of human whole blood with ab61402 (right) or mouse IgG1 kappa; (**ab170190**) isotype (left). Red blood cells of 200 µl blood were lysed, then cells were incubated for 30 min on ice in 1x PBS containing 10 µg/ml human IgG and 10 µll normal goat serum to block Fc receptors and non-specific protein-protein interaction followed by the antibody (ab61402) or mouse IgG1 kappa; (**ab170190**) isotype ($1x10^6$ in 100 µl; at 1 µg/ml) for 30 min on ice.

The secondary antibody Goat anti-mouse IgG H&L (Alexa Fluor® 488, pre-adsorbed) (**ab150117**) was used at 1/2000 dilution for 30 min on ice.

The cells were simultaneously stained with CD41/CD61 APC. Acquisition of >30000 events were collected using a 50 mW Blue laser (488nm) and 525/40 bandpass filter. Events were gated on

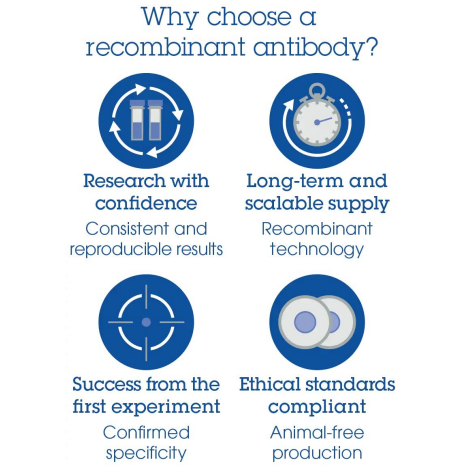
granulocytes.



Immunohistochemistry (Frozen sections) - Anti-CD42b antibody [AK2] (ab61402)

Negative control image. Immunohistochemistry image of CD42b staining in a section of frozen normal human cerebral cortex performed on a Leica BOND™ system using the standard protocol.

The section was fixed in 10% paraformaldehyde (10 min) prior to staining. The section was incubated with ab61402, 1µg/ml, for 15 mins at room temperature and detected using an HRP conjµgated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. The inset secondary-only control image is taken from an identical assay without primary antibody.



Anti-CD42b antibody [AK2] (ab61402)

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