abcam

Product datasheet

Anti-Iba1 antibody [EPR16589] - Mouse IgG1 (Chimeric) ab283319

Recombinant

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Overview

Product name	Anti-Iba1 antibody [EPR16589] - Mouse IgG1 (Chimeric)
Description	Mouse monoclonal [EPR16589] to Iba1 - Mouse IgG1
Host species	Mouse
Tested applications	**Suitable for:** WB, IP, Flow Cyt (Intra), IHC-P, ICC/IF
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: THP-1 whole cell lysate. IHC-P: Human cerebrum, Human endometrium and Mouse cerebrum, Rat cerebrum tissues. ICC: THP-1 cells. Flow Cyt: THP-1 cell. IP: THP-1 cell.
General notes	This mouse monoclonal chimeric antibody has been engineered from a RabMAb parent antibody (**ab178847**). By necessity, some rabbit sequence is retained as part of the variable domain. When multiplexing with other rabbit-derived antibodies, using cross absorbed Fc-reactive secondary antibodies are recommended. 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. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 0.05% BSA, 40% Glycerol (glycerin, glycerine)
Purity	Protein A purified

Clonality	Monoclonal
Clone number	EPR16589
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab283319 in the following tested applications.

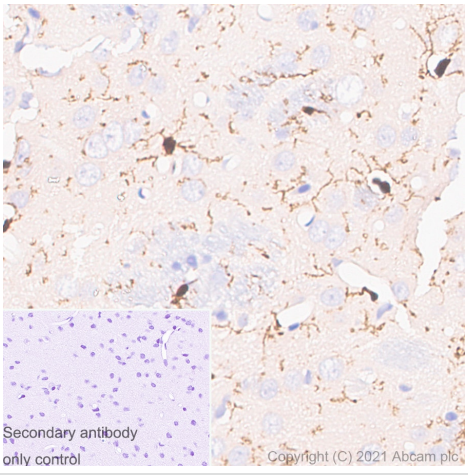
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Predicted molecular weight: 16 kDa.
IP		1/30.
Flow Cyt (Intra)		1/10000.
IHC-P		1/10000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF	★★★★☆ (1)	1/100.

Target

Function	Actin-binding protein that enhances membrane ruffling and RAC activation. Enhances the actin-bundling activity of LCP1. Binds calcium. Plays a role in RAC signaling and in phagocytosis. May play a role in macrophage activation and function. Promotes the proliferation of vascular smooth muscle cells and of T-lymphocytes. Enhances lymphocyte migration. Plays a role in vascular inflammation.
Tissue specificity	Detected in T-lymphocytes and peripheral blood mononuclear cells.
Sequence similarities	Contains 2 EF-hand domains.
Post-translational modifications	Phosphorylated on serine residues.
Cellular localization	Cytoplasm > cytoskeleton. Cell projection > ruffle membrane. Associated with the actin cytoskeleton at membrane ruffles and at sites of phagocytosis.

Images

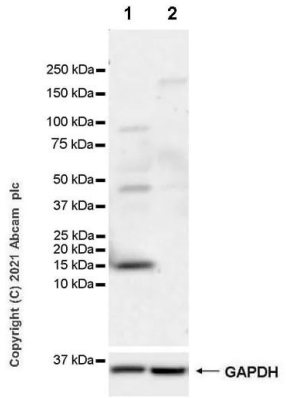


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Iba1 antibody [EPR16589] - Mouse IgG1 (Chimeric) (ab283319)

Immunohistochemical analysis of paraffin-embedded Rat cerebrum tissue labeling Iba1 with ab283319 at 1/10000 (0.114 ug/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Positive staining on the microglia in rat cerebrum. The section was incubated with ab283319 for 10 mins at room temperature and followed by mouse specific IgG antibody (**ab125913**) for 8 mins. 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 LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins



Western blot - Anti-Iba1 antibody [EPR16589] - Mouse IgG1 (Chimeric) (ab283319)

All lanes : Anti-Iba1 antibody [EPR16589] - Mouse IgG1 (Chimeric) (ab283319) at 1/1000 dilution

Lane 1 : THP-1 (human monocytic leukemia monocyte), whole cell lysate
Lane 2 : MCF7 (human breast adenocarcinoma epithelial cell), whole cell lysate

Lysates/proteins at 20 µg per lane.

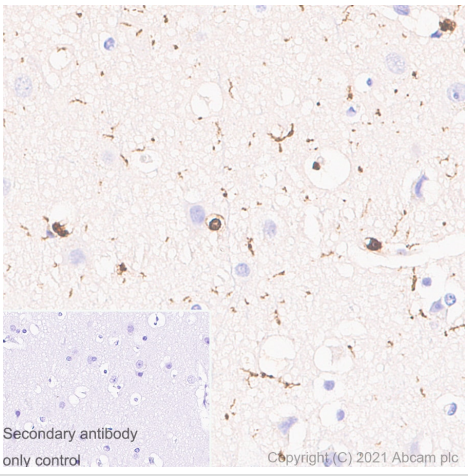
Secondary
All lanes : Peroxidase-Conjugated Goat anti-Mouse IgG (H+L) at 1/5000 dilution

Predicted band size: 16 kDa
Observed band size: 16 kDa

Blocking and diluting buffer: 5% NFDM/TBST

Negative control: MCF7 (HPA database)

Exposure time: 136 seconds

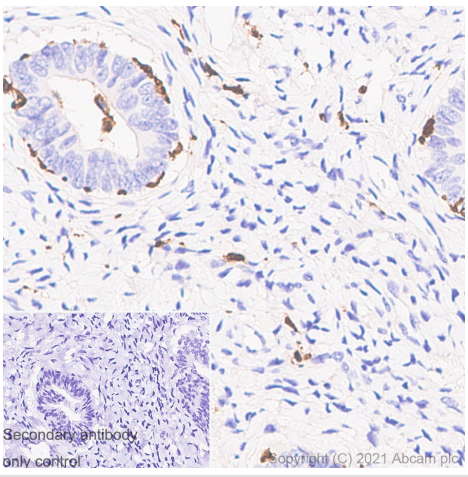


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Iba1 antibody [EPR16589] - Mouse IgG1 (Chimeric) (ab283319)

Immunohistochemical analysis of paraffin-embedded Human cerebrum tissue labeling Iba1 with ab283319 at 1/10000 (0.114 ug/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Positive staining on the microglia in human cerebrum. The section was incubated with ab283319 for 10 mins at room temperature and followed by mouse specific IgG antibody (**ab125913**) for 8 mins. 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 LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins

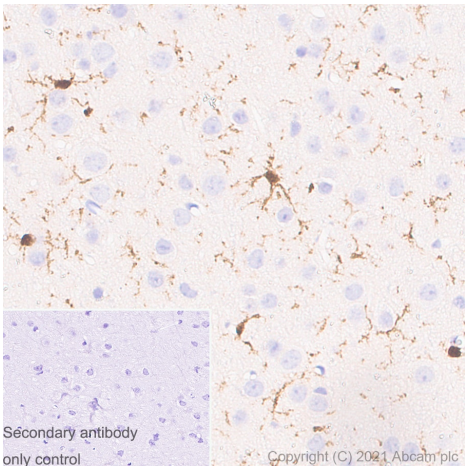


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Iba1 antibody [EPR16589] - Mouse IgG1 (Chimeric) (ab283319)

Immunohistochemical analysis of paraffin-embedded Human endometrium tissue labeling Iba1 with ab283319 at 1/10000 (0.114 ug/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Positive staining on the immune cells in human endometrium. The section was incubated with ab283319 for 10 mins at room temperature and followed by mouse specific IgG antibody (**ab125913**) for 8 mins. 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 LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins

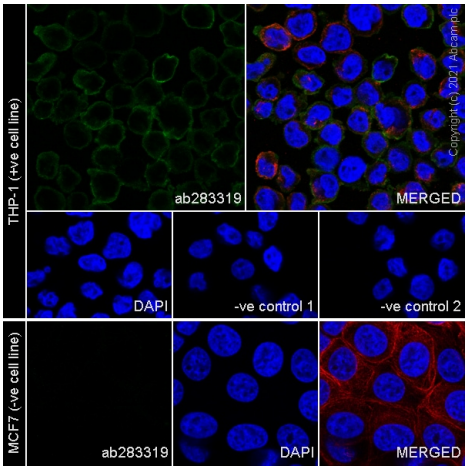


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Iba1 antibody [EPR16589] - Mouse IgG1 (Chimeric) (ab283319)

Immunohistochemical analysis of paraffin-embedded Mouse cerebrum tissue labeling Iba1 with ab283319 at 1/10000 (0.114 ug/ml) dilution followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Positive staining on the microglia in mouse cerebrum. The section was incubated with ab283319 for 10 mins at room temperature and followed by mouse specific IgG antibody (**ab125913**) for 8 mins. 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 LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins

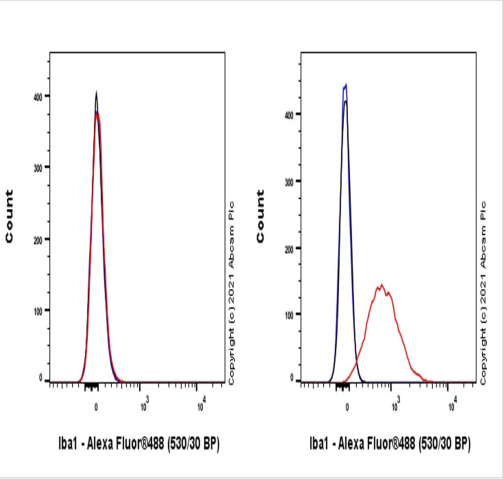


Immunocytochemistry/ Immunofluorescence - Anti-Iba1 antibody [EPR16589] - Mouse IgG1 (Chimeric) (ab283319)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized THP-1 cells labelling Iba1 with ab283319 at 1/100 (11.36 ug/ml) dilution, followed by **ab150113** Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). **ab179513** Anti-beta Tubulin rabbit monoclonal antibody was used to counterstain tubulin at 1/200 dilution (Red). The Nuclear counterstain was DAPI (Blue). Confocal image showing cytoplasmic staining in THP-1 cells.

Negative control: MCF7

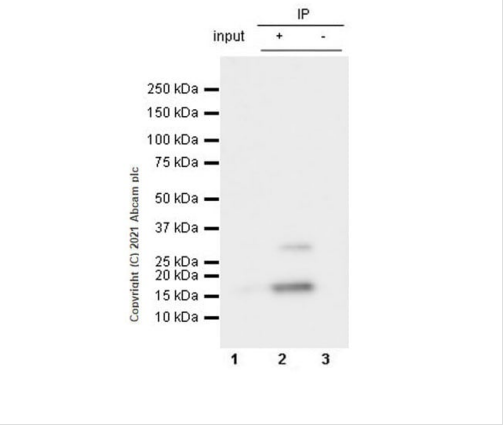
Secondary antibody only control: Secondary antibody is **ab150113** Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.



Flow Cytometry (Intracellular) - Anti-Iba1 antibody [EPR16589] - Mouse IgG1 (Chimeric) (ab283319)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized MCF7 (Human breast adenocarcinoma epithelial cell, Left) / THP-1 (Human monocytic leukemia monocyte, Right) cells labelling Iba1 with ab283319 at 1/10000 dilution (0.01ug) (Red) compared with a Mouse monoclonal IgG (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti mouse IgG (Alexa Fluor® 488, **ab150113**) at 1/2000 dilution was used as the secondary antibody.

Negative control: MCF7.



Immunoprecipitation - Anti-Iba1 antibody [EPR16589] - Mouse IgG1 (Chimeric) (ab283319)

Iba1 was immunoprecipitated from 0.35 mg THP-1 (human monocytic leukemia monocyte), whole cell lysate 10 ug with ab283319 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab283319 at 1/1000 dilution. mouse IgG for IP (HRP) (**ab131368**) was used at 1/10000 dilution.

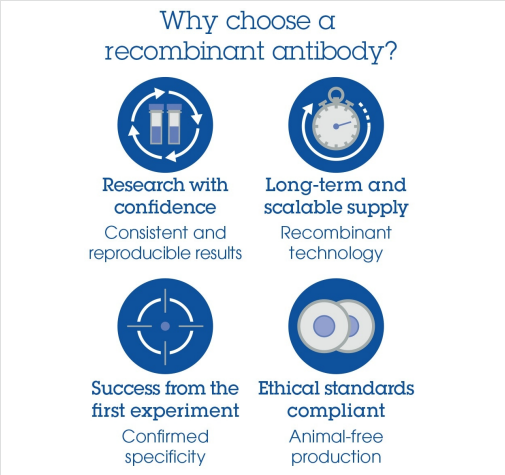
Lane 1: THP-1 (human monocytic leukemia monocyte), whole cell lysate 10 ug

Lane 2: ab283319 IP in THP-1 whole cell lysate

Lane 3: Mouse monoclonal IgG (**ab18443**) instead of ab283319 in THP-1 whole cell lysate

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

Exposure time: 32 seconds



Anti-Iba1 antibody [EPR16589] - Mouse IgG1 (Chimeric) (ab283319)

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