abcam

ab314652

Anti-FLAP antibody [EPR27505-52]

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	EPR27505-52
Purification technique	Affinity purification Protein A
Concentration	0.498 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Species	Mouse

Dilution info	1/1000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

Species	Transfected cell lysate - Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Transfected cell line - Human
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/500
Notes	-

Species	Mouse
Dilution info	1/500
Notes	-

Species	Rat
Dilution info	1/500
Notes	-

Species	Transfected cell line - Human
Dilution info	1/2000
Notes	-

Not recommended

Species	Transfected cell lysate - Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/50
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Transfected cell lysate - Human, Transfected cell line - Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/500
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Not recommended

Species	Transfected cell lysate - Human, Transfected cell line - Human
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Mouse, Rat, Transfected cell lysate - Human, Transfected cell line - Human
Dilution info	-
Notes	-

Target data

See full target information ALOX5AP

Function	Required for leukotriene biosynthesis by ALOX5 (5-lipoxygenase). Anchors ALOX5 to the membrane. Binds arachidonic acid, and could play an essential role in the transfer of arachidonic acid to ALOX5. Binds to MK-886, a compound that blocks the biosynthesis of leukotrienes.

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	FLAP also known as ALOX5AP is an important protein in the leukotriene biosynthetic pathway. It functions mechanically as a membrane-associated protein that facilitates the transfer of arachidonic acid to 5-lipoxygenase (5-LOX) a critical step in the production of leukotrienes. FLAP has a molecular mass of approximately 18 kDa and is primarily expressed in cells of the myeloid lineage such as neutrophils monocytes and macrophages.
Biological function summary	FLAP plays an essential role in the inflammatory response and is a component of the leukotriene synthesis complex. This complex is responsible for the production of leukotrienes which are potent lipid mediators that contribute to inflammation and immune regulation. By regulating leukotriene synthesis FLAP supports processes like chemotaxis cell aggregation and smooth muscle contraction essential for the body's response to inflammation.
Pathways	The FLAP signaling pathway is integral to the leukotriene metabolic pathway. It facilitates the interaction between arachidonic acid and 5-LOX leading to the generation of leukotrienes such as LTA4 and LTB4. These molecules are involved in numerous processes including bronchoconstriction and migration of leukocytes. Proteins related to FLAP within this pathway include 5-LOX and LTC4 synthase which further convert leukotrienes into biologically active compounds.
Associated diseases and disorders	FLAP is associated with asthma and cardiovascular diseases. Its role in producing leukotrienes links it to the pathogenesis of inflammatory conditions. Elevated levels of leukotrienes mediated by FLAP can exacerbate symptoms in asthma by causing bronchial constriction. In cardiovascular diseases FLAP-related pathway dysregulation can contribute to atherosclerosis development. Proteins connected

to FLAP through these disorders include leukotriene receptor antagonists which are therapeutic targets for reducing leukotriene-mediated effects.

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

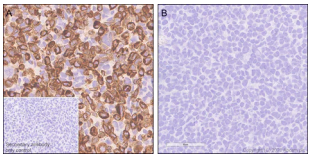
We do not recommend this combination. It is not covered by our product promise.

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.

12 product images

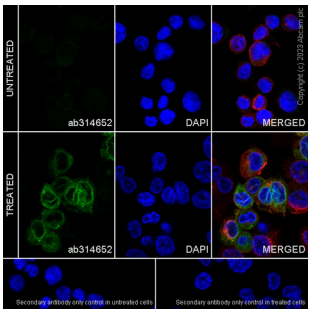


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FLAP antibody [EPR27505-52] (ab314652)

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

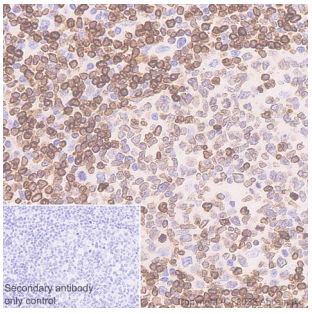
Immunohistochemical analysis of paraffin-embedded (A) HEK-293T (human epithelial cell line from embryonic kidney) transfected with a ALOX5AP expression vector containing a Myc-His tag. (B) HEK-293T transfected with empty vector containing a Myc-His tag. tissue labeling FLAP with ab314652 at 1/2000 (0.249 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Positive staining on (A) HEK-293T (human epithelial cell line from embryonic kidney) transfected with a ALOX5AP expression vector containing a Myc-His tag, no staining on (B) HEK-293T transfected with empty vector containing a Myc-His tag. The section was incubated with ab314652 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 LeicaDS9800 (Bond™ Polymer Refine Detection).Heat

mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



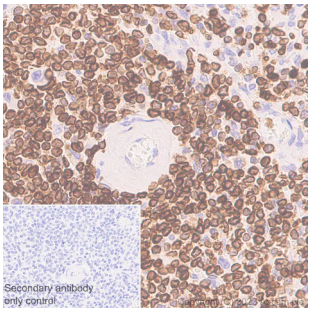
Immunocytochemistry/ Immunofluorescence - Anti-FLAP antibody [EPR27505-52] (ab314652)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized THP-1 (human monocytic leukemia monocyte) cells labelling FLAP with ab314652 at 1/50 (9.96 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2ug/ml dilution (Green). Confocal image showing increased positive staining in THP-1 cells treated with PMA (80nM) for 72 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 2.5ug/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 2ug/ml dilution.



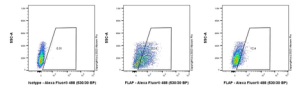
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FLAP antibody [EPR27505-52] (ab314652)

Immunohistochemical analysis of paraffin-embedded Human tonsil tissue labeling FLAP with ab314652 at 1/500 (0.996 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Positive staining on human tonsil. The section was incubated with ab314652 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 LeicaDS9800 (Bond™ Polymer Refine Detection).Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



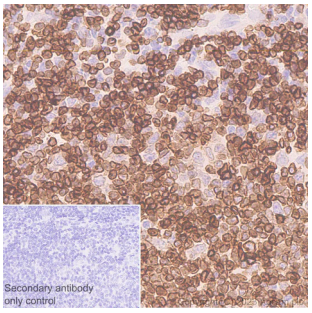
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FLAP antibody [EPR27505-52] (ab314652)

Immunohistochemical analysis of paraffin-embedded Human spleen tissue labeling FLAP with ab314652 at 1/500 (0.996 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Positive staining on human spleen. The section was incubated with ab314652 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 LeicaDS9800 (Bond™ Polymer Refine Detection).Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



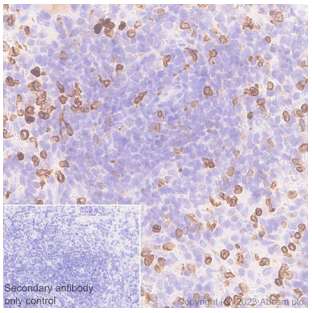
Flow Cytometry (Intracellular) - Anti-FLAP antibody [EPR27505-52] (ab314652)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized Isotype (Left) / THP-1 (human monocytic leukemia monocyte) treated with 80nM PMA for 72h (Middle) / Untreated THP-1 (Right) cells labelling FLAP with ab314652 at 1/500 dilution (0.1 ug)/Middle and Right (Red) compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.



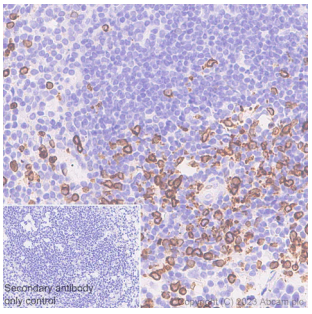
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FLAP antibody [EPR27505-52] (ab314652)

Immunohistochemical analysis of paraffin-embedded Human non-hodgkin's lymphoma tissue labeling FLAP with ab314652 at 1/500 (0.996 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Positive staining on human non-hodgkin's lymphoma. The section was incubated with ab314652 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 LeicaDS9800 (Bond™ Polymer Refine Detection).Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



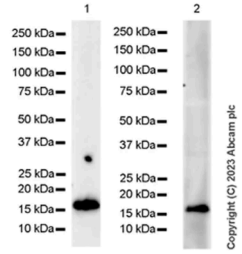
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FLAP antibody [EPR27505-52] (ab314652)

Immunohistochemical analysis of paraffin-embedded Rat spleen tissue labeling FLAP with ab314652 at 1/500 (0.996 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Positive staining on rat spleen. The section was incubated with ab314652 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 LeicaDS9800 (Bond™ Polymer Refine Detection).Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FLAP antibody [EPR27505-52] (ab314652)

Immunohistochemical analysis of paraffin-embedded Mouse spleen tissue labeling FLAP with ab314652 at 1/500 (0.996 ug/ml) followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Positive staining on mouse spleen. The section was incubated with ab314652 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 LeicaDS9800 (Bond™ Polymer Refine Detection).Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Western blot - Anti-FLAP antibody [EPR27505-52] (ab314652)

Blocking and diluting buffer and concentration: 5% NFDM/TBST This blot of lane 2 was developed using a high sensitivity ECL substrate.
All lanes:
Western blot - Anti-FLAP antibody [EPR27505-52] (ab314652) at 1/1000 dilution

Lane 1:
Human spleen tissue lysate at 20 µg

Lane 2:
Human small intestine tissue lysate at 20 µg

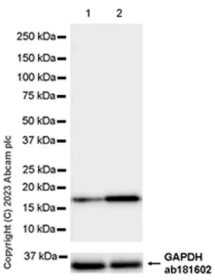
Secondary

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

Developed using the ECL technique.

Observed band size: 18 kDa

Exposure time: 103s



Western blot - Anti-FLAP antibody [EPR27505-52] (ab314652)

Blocking and diluting buffer and concentration: 5% NFDM/TBST The expression profile observed is consistent with what has been described in the literature (PMID: 31316498). In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.
All lanes:
Western blot - Anti-FLAP antibody [EPR27505-52] (ab314652) at 1/1000 dilution

Lane 1:
Untreated THP-1 (human monocytic leukemia monocyte) whole cell lysate at 20 µg

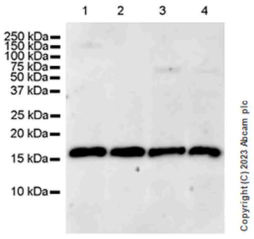
Lane 2:
THP-1 treated with 80nM PMA for 72 hours whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 18 kDa

Exposure time: 6s



Western blot - Anti-FLAP antibody [EPR27505-52] (ab314652)

Blocking and diluting buffer and concentration: 5% NFDM/TBST
All lanes:
Western blot - Anti-FLAP antibody [EPR27505-52] (ab314652) at 1/1000 dilution

Lane 1:
RAW 264.7 (mouse abelson murine leukemia virus-induced tumor macrophage) whole cell lysate at 20 µg

Lane 2:
Mouse spleen tissue lysate at 20 µg

Lane 3:
Mouse lung tissue lysate at 20 µg

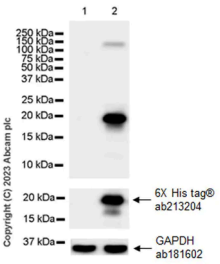
Lane 4:
Rat spleen tissue lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 18 kDa

Exposure time: 103s



Western blot - Anti-FLAP antibody [EPR27505-52] (ab314652)

Blocking and diluting buffer and concentration: 5% NFDM/TBST In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution. In Western blot, Anti-6X His tag® antibody [EPR20547] - ChIP Grade (ab213204) staining at 1/5000 dilution
All lanes:
Western blot - Anti-FLAP antibody [EPR27505-52] (ab314652) at 1/1000 dilution

Lane 1:
293T cells transfected with an empty vector containing a His-tag®, whole cell lysate at 7 µg

Lane 2:
293T cells transfected with a human ALOX5AP expression vector containing a His-tag®, whole cell lysate at 7 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 18 kDa

Exposure time: 3s

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