abcam

ab154809

Anti-LAP3 antibody [EPR10330]

Recombinant | RabMAb | KO Validated

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	EPR10330
Purification technique	Affinity purification Protein A
Concentration	0.11 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/50 - 1/100
Notes	Perform heat-mediated antigen retrieval before commencing with IHC staining protocol.

Predicted

Species	Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000 - 1/10000
Notes	-

Predicted

Species	Rat
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Rat
Dilution info	-
Notes	-

Target data

See full target information LAP3

Function	Cytosolic metallopeptidase that catalyzes the removal of unsubstituted N-terminal hydrophobic amino acids from various peptides. The presence of Zn(2+) ions is essential for the peptidase activity, and the association with other cofactors can modulate the substrate spectificity of the enzyme. For instance, in the presence of Mn(2+), it displays a specific Cys-Gly hydrolyzing activity of Cys-Gly-S-conjugates. Involved in the metabolism of glutathione and in the degradation of glutathione S-conjugates, which may play a role in the control of the cell redox status.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C

Notes

Species reactivity
Mouse: We have preliminary internal testing data to indicate this antibody may not react with this species. Please contact us for more information.

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	LAP3 also known as leukotriene A4 hydrolase has a molecular weight of approximately 53 kDa. This enzyme functions as an aminopeptidase which is a type of enzyme that removes amino acids from the amino terminus of proteins and peptides. It is expressed in many tissues with significant levels found in the liver and kidney. LAP3 also shows activity in the cellular cytoplasm indicating it plays a role in cellular metabolic processes.
Biological function summary	LAP3 participates in protein maturation and degradation. It plays a role in processing peptides that are destined for further degradation or cellular signaling. The LAP3 protein is not known to be part of a larger complex but it works alongside other enzymes involved in peptide metabolism. This activity contributes to the regulation of intracellular peptide concentrations and supports cellular homeostasis.
Pathways	LAP3 is linked to important biological processes such as protein catabolism and the regulation of blood pressure. It interacts within the peptide processing pathways to influence the generation of bioactive peptides. LAP3 works in conjunction with other proteolytic enzymes such as aminopeptidases and endopeptidases which are essential for various cellular functions. Through these pathways LAP3 indirectly impacts the regulation of physiological processes.
Associated diseases and disorders	LAP3 is associated with hypertension and certain metabolic disorders. It influences conditions like high blood pressure through its role in generating peptides that can modulate vascular functions. LAP3 has connections with proteins involved in these conditions such as angiotensin-converting enzyme (ACE) which also plays a part in blood pressure regulation. Understanding the functions of LAP3 aids in delineating its potential as a therapeutic target for these diseases.

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

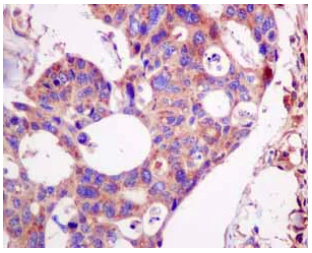
We do not recommend this combination. It is not covered by our product promise.

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.

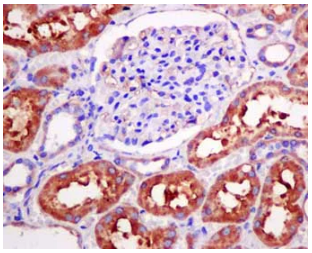
9 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LAP3 antibody [EPR10330] (ab154809)

Immunohistochemical analysis of paraffin embedded Human colonic adenocarcinoma tissue using ab154809 showing +ve staining.

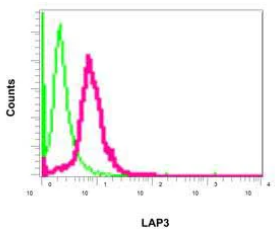
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LAP3 antibody [EPR10330] (ab154809)

LAP3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-LAP3 antibody

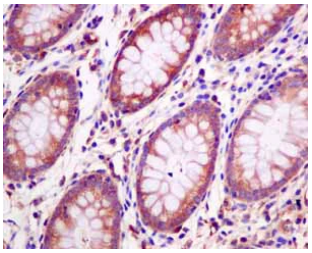
Immunohistochemical analysis of paraffin-embedded human kidney tissue labeling LAP3 with ab154809 at 1/50 dilution.
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-LAP3 antibody [EPR10330] (ab154809)

LAP3 Flow Cytometry (Intracellular) staining using rabbit Anti-LAP3 antibody

Intracellular flow cytometric analysis of permeabilized 293T cells labeling LAP3 with ab154809 at 1/10 dilution (red) or a negative rabbit IgG (control) (green).

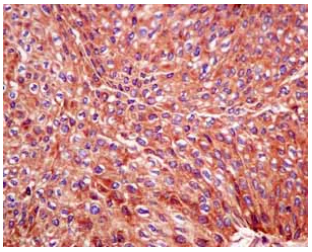


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LAP3 antibody [EPR10330] (ab154809)

LAP3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-LAP3 antibody

Immunohistochemical analysis of paraffin embedded Human normal colon tissue using ab154809 showing +ve staining.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

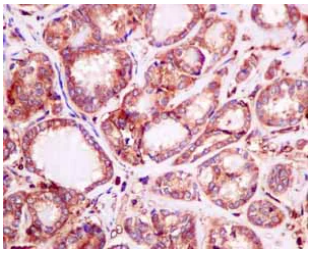


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LAP3 antibody [EPR10330] (ab154809)

LAP3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-LAP3 antibody

Immunohistochemical analysis of paraffin embedded Human urinary bladder transitional carcinoma tissue using ab154809 showing +ve staining.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

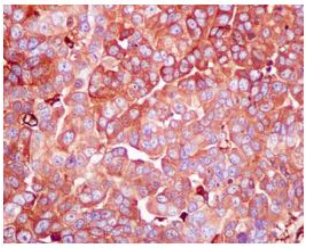


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LAP3 antibody [EPR10330] (ab154809)

LAP3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-LAP3 antibody

Immunohistochemical analysis of paraffin embedded Human thyroid gland carcinoma tissue using ab154809 showing +ve staining.

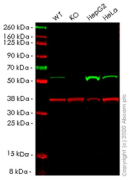
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LAP3 antibody [EPR10330] (ab154809)

LAP3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-LAP3 antibody

Immunohistochemical analysis of paraffin-embedded ovarian human carcinoma tissue labeling LAP3 with ab154809 at 1/50 dilution.
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Western blot - Anti-LAP3 antibody [EPR10330] (ab154809)

LAP3 Western blot staining using rabbit Anti-LAP3 antibody

Lanes 1-4: Merged signal (red and green). Green - ab154809 observed at 56 kDa. Red - loading control ab8245 observed at 36 kDa.
ab154809 Anti-LAP3 antibody [EPR10330] was shown to specifically react with LAP3 in wild-type A549 cells. Loss of signal was observed when knockout cell line ab266986 (knockout cell lysate ab258023) was used. Wild-type and LAP3 knockout samples were subjected to SDS-PAGE. ab154809 and Anti-GAPDH antibody [6C5] - Loading Control (ab8245) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-LAP3 antibody [EPR10330] (ab154809) at 1/1000 dilution

Lane 1:
Wild-type A549 cell lysate at 20 µg

Lane 2:
LAP3 knockout A549 cell lysate at 20 µg

Lane 2:
Western blot - Human LAP3 knockout A549 cell line (ab266986)

Lane 3:
HepG2 cell lysate at 20 µg

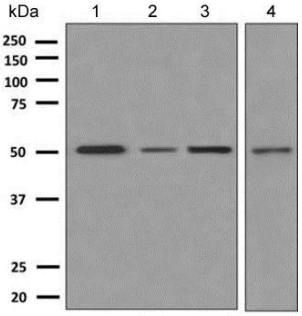
Lane 4:
HeLa cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) at 1/10000 dilution

Predicted band size: 56 kDa

Observed band size: 56 kDa



Western blot - Anti-LAP3 antibody [EPR10330] (ab154809)

LAP3 Western blot staining using rabbit Anti-LAP3 antibody

All lanes:
Western blot - Anti-LAP3 antibody [EPR10330] (ab154809) at 1/1000 dilution

Lane 1:
Human fetal liver lysate at 10 µg

Lane 2:
293T lysate at 10 µg

Lane 3:

HepG2 lysate at 10 µg

Lane 4:
HeLa lysate at 10 µg

Predicted band size: 56 kDa

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