abcam

ab215997

Anti-LRP1 antibody [EPR3724] - BSA and Azide free

Recombinant | RabMAb | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR3724
Purification technique	Affinity purification Protein A
Concentration	0.997 - 1.017 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

IP

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

WB

Tested

Species	Pig, Rat, Human, Mouse
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human, Rat
Dilution info	-
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

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

Target data

See full target information LRP1

Function Endocytic receptor involved in endocytosis and in phagocytosis of apoptotic cells (PubMed:11907044, PubMed:12713657). Required for early embryonic development (By similarity). Involved in cellular lipid homeostasis. Involved in the plasma clearance of chylomicron remnants and activated LRPAP1 (alpha 2-macroglobulin), as well as the local metabolism of complexes between plasminogen activators and their endogenous inhibitors. Acts as an LRPAP1 alpha-2-macroglobulin receptor (PubMed:1702392, PubMed:26142438). Acts as TAU/MAPT receptor and controls the endocytosis of TAU/MAPT as well as its subsequent spread (PubMed:32296178). May modulate cellular events, such as APP metabolism, kinase-dependent intracellular signaling, neuronal calcium signaling as well as neurotransmission (PubMed:12888553). Also acts as a receptor for IGFBP3 to mediate cell growth inhibition (PubMed:9252371). (Microbial infection) Functions as a receptor for Pseudomonas aeruginosa exotoxin A.

Storage

Shipped at conditions Blue Ice

Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab215997 is the carrier-free version of ab92544.

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.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

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.

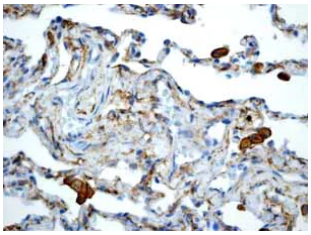
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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13 product images

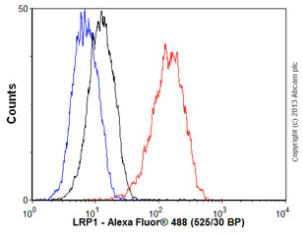


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LRP1 antibody [EPR3724] - BSA and Azide free (ab215997)

LRP1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-LRP1 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of normal human lung tissue labelling LRP1 with unpurified ab92544.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab92544).

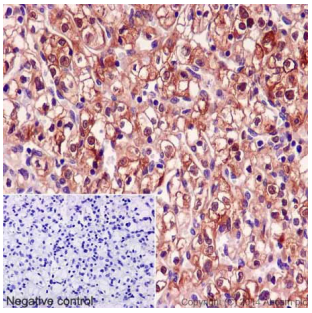
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-LRP1 antibody [EPR3724] - BSA and Azide free (ab215997)

LRP1 Flow Cytometry (Intracellular) staining using rabbit Anti-LRP1 antibody

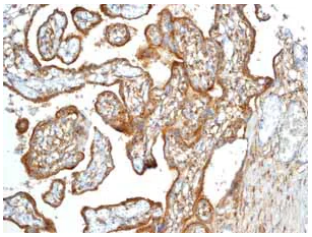
Overlay histogram showing Jurkat cells stained with unpurified ab92544 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab92544, 1/1000 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) (ab150077) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab92544).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LRP1 antibody [EPR3724] - BSA and Azide free (ab215997)

LRP1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-LRP1 antibody

This IHC data was generated using the same anti-LRP1 antibody clone, EPR3724, in a different buffer formulation (cat# ab92544).
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human clear cell carcinoma of the kidney tissue labelling LRP1 with purified ab92544 at 1/100. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. ab97051, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.

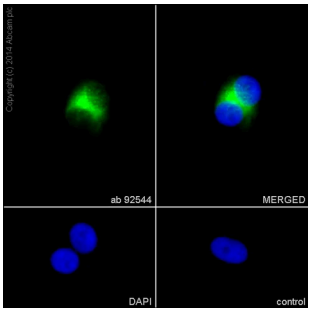


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LRP1 antibody [EPR3724] - BSA and Azide free (ab215997)

LRP1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-LRP1 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of normal human placenta tissue labelling LRP1 with unpurified ab92544.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab92544).

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

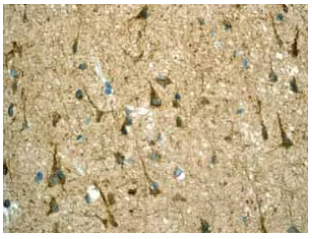


Immunocytochemistry/ Immunofluorescence - Anti-LRP1 antibody [EPR3724] - BSA and Azide free (ab215997)

LRP1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-LRP1 antibody

Immunocytochemistry/Immunofluorescence analysis of U87-MG cells labelling LRP1 with purified ab92544 at 1/100. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/500) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain.
Control: primary antibody (1/100) and secondary antibody, ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/500).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab92544).



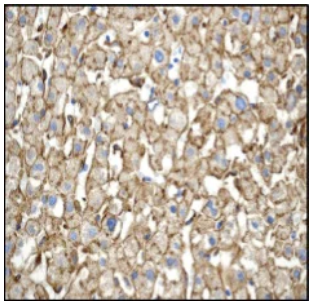
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LRP1 antibody [EPR3724] - BSA and Azide free (ab215997)

LRP1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-LRP1 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of normal human brain tissue labelling LRP1 with unpurified ab92544.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab92544).

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

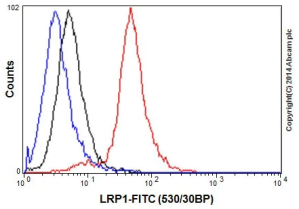


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LRP1 antibody [EPR3724] - BSA and Azide free (ab215997)

LRP1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-LRP1 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human liver tissue labelling LRP1 with unpurified ab92544 at 1/100.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab92544).

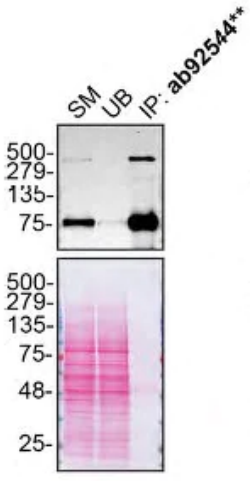
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-LRP1 antibody [EPR3724] - BSA and Azide free (ab215997)

LRP1 Flow Cytometry (Intracellular) staining using rabbit Anti-LRP1 antibody

Intracellular Flow Cytometry analysis of Jurkat cells labelling LRP1 with purified ab92544 at 1/100 (red). Cells were fixed with 2% paraformaldehyde. A FITC-conjugated goat anti-rabbit IgG (1/150) was used as the secondary antibody. Black - Isotype control, rabbit monoclonal IgG. Blue - Unlabelled control, cells without incubation with primary and secondary antibodies.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab92544).



Immunoprecipitation - Anti-LRP1 antibody [EPR3724] - BSA and Azide free (ab215997)

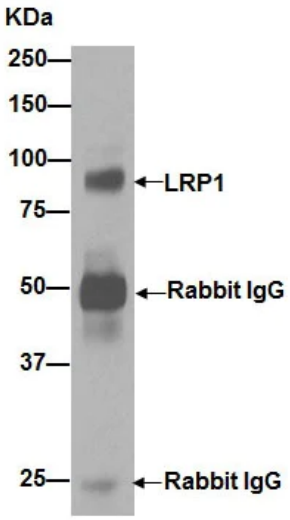
This data was developed using ab92544, the same antibody clone in a different buffer formulation.

Immunoprecipitation of LRP1 in HAP1 cells. Lysates were prepared and immunoprecipitation was performed using 2.0 µg of ab92544 pre-coupled to Protein A beads. Samples were then washed and processed for western blot.

These data were provided by YCharOS Inc., an open science company with the mission of characterizing commercially available antibody reagents for all human proteins. Abcam and YCharOS are working together to help address the reproducibility crisis by enabling the life science community to better evaluate commercially available antibodies.

All lanes:
Immunoprecipitation - Anti-LRP1 antibody [EPR3724] (ab92544) at 2 µg

All lanes:
HAP1 cells



Immunoprecipitation - Anti-LRP1 antibody [EPR3724] - BSA and Azide free (ab215997)

ab92544 (purified) at 1/30 immunoprecipitating LRP1 in A549 cell lysate. For western blotting, a peroxidase-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/1000). Blocking buffer and concentration: 5% NFDM/TBST.

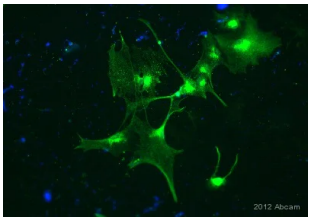
Diluting buffer and concentration: 5% NFDM /TBST.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab92544).

All lanes:
Immunoprecipitation - Anti-LRP1 antibody [EPR3724] (ab92544)

Predicted band size: 504 kDa

Observed band size: 85 kDa

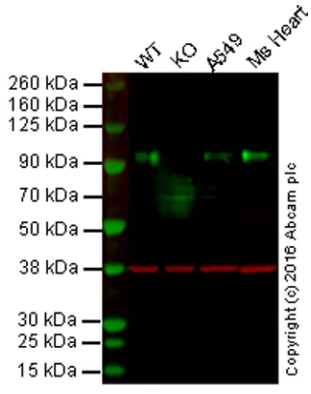


This image is courtesy of a customer review submitted by Ruma Raha-Chowdhury.

Immunocytochemistry/ Immunofluorescence - Anti-LRP1 antibody [EPR3724] - BSA and Azide free (ab215997)

LRP1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-LRP1 antibody

ICC/IF image of LRP1 staining on rat mixed glia culture using unpurified ab92544 (1:200). The cells were fixed using paraformaldehyde. The cells were then permeabilised using 0.1% TritonX in 0.1% PBS. Non-specific protein was blocked using 10% donkey serum at 24°C for 1 hour. ab92544 was diluted (1/200) using 0.1% TritonX with 0.1% PBS and 10% donkey serum and the cells were incubated for 4 hours at 24°C. The secondary antibody used was donkey polyclonal to Rabbit IgG conjugated to Alexa Fluor® 488. DAPI was used to stain the nucleus.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab92544).



Western blot - Anti-LRP1 antibody [EPR3724] - BSA and Azide free (ab215997)

LRP1 Western blot staining using rabbit Anti-LRP1 antibody

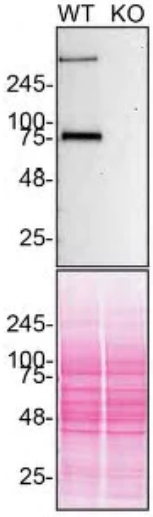
This WB data was generated using the same anti-LRP1 antibody clone, EPR3724, in a different buffer formulation (cat# ab92544).
Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: LRP1 knockout HAP1 cell lysate (20 µg)
Lane 3: A549 cell lysate (20 µg)
Lane 4: Mouse heart tissue lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab92544 observed at 92 kDa. Red - loading control, ab8245, observed at 37 kDa.

ab92544 was shown to specifically react with LRP1 in wild-type HAP1 cells. No band was observed when LRP1 knockout samples were used. Wild-type and LRP1 knockout samples were subjected to SDS-PAGE. ab92544 and ab8245 (loading control to GAPDH) were diluted at 1/5000 and 1/10,000

respectively and incubated overnight at 4°C. 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 1/10,000 dilution for 1 hour at room temperature before imaging.
All lanes:
Western blot - Anti-LRP1 antibody [EPR3724] (ab92544)

Predicted band size: 504 kDa



Western blot - Anti-LRP1 antibody [EPR3724] - BSA and Azide free (ab215997)

This data was developed using ab92544, the same antibody clone in a different buffer formulation.

ab92544 was shown to react with LRP1 in wild-type HAP1 cells in Western blot with loss of signal observed in a LRP1 knockout cell line. Wild-type HAP1 and LRP1 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 5% milk in TBST for 1 hr before incubation with ab92544 overnight at 4 °C at a 1/50000 dilution. Blots were incubated with secondary antibodies at 0.2 µg/mL before imaging.

These data were provided by YCharOS Inc., an open science company with the mission of characterizing commercially available antibody reagents for all human proteins. Abcam and YCharOS are working together to help address the reproducibility crisis by enabling the life science community to better evaluate commercially available antibodies.

All lanes:
Western blot - Anti-LRP1 antibody [EPR3724] (ab92544) at 1/50000 dilution

Lane 1:
Wild-type HAP1 lysate at 30 µg

Lane 2:
LRP1 knock-out HAP1 lysate at 30 µg

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