

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

KO **VALIDATED** **Recombinant** **RabMAb**

[17 References](#) [12 Images](#)

Overview

Product name	Anti-LRP1 antibody [EPR3724] - BSA and Azide free
Description	Rabbit monoclonal [EPR3724] to LRP1 - BSA and Azide free
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), IP, IHC-P, WB, ICC/IF
Species reactivity	Reacts with: Mouse, Rat, Human, Pig
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: PMBC and A549 cell lysates; mouse brain, heart, kidney and spleen tissue lysates; rat brain, heart, kidney or spleen tissue lysates; human fetal brain tissue lysates; pig liver and heart tissue lysates. IHC-P: Human liver, clear cell carcinoma, brain, lung and placenta tissues. ICC/IF: U87-MG cells. Flow Cyt (intra): Jurkat cells. IP: A549 cells.
General notes	ab215997 is the carrier-free version of ab92544 .

Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.

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.

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.

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](#).

Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit

monoclonal antibodies. For details on our patents, please refer to [RabMAb® patents](#).

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.20 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR3724
Isotype	IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab215997 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
Flow Cyt (Intra)		Use at an assay dependent concentration. ab199376 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
IP		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See IHC antigen retrieval protocols .
WB		Use at an assay dependent concentration. Predicted molecular weight: 85 kDa.
ICC/IF		Use at an assay dependent concentration.

Target

Function	Endocytic receptor involved in endocytosis and in phagocytosis of apoptotic cells. Required for early embryonic development. 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. May modulate cellular events, such as APP metabolism, kinase-dependent intracellular signaling, neuronal calcium signaling as well as neurotransmission. Functions as a receptor for Pseudomonas aeruginosa exotoxin A.
Tissue specificity	Most abundant in liver, brain and lung.

Sequence similarities

Belongs to the LDLR family.
Contains 22 EGF-like domains.
Contains 31 LDL-receptor class A domains.
Contains 34 LDL-receptor class B repeats.

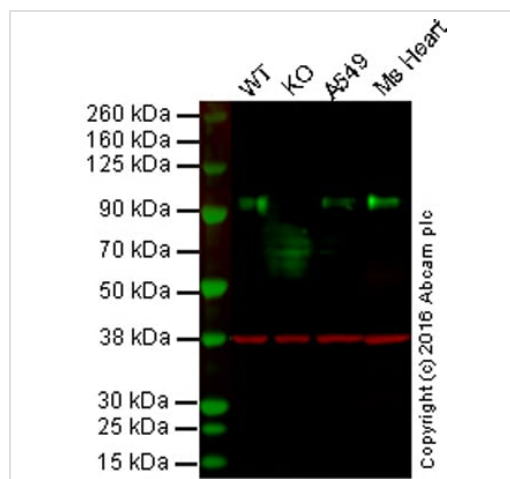
Post-translational modifications

Cleaved into a 85 kDa membrane-spanning subunit (LRP-85) and a 515 kDa large extracellular domain (LRP-515) that remains non-covalently associated. Gamma-secretase-dependent cleavage of LRP-85 releases the intracellular domain from the membrane.
The N-terminus is blocked.
Phosphorylated on serine and threonine residues.
Phosphorylated on tyrosine residues upon stimulation with PDGF. Tyrosine phosphorylation promotes interaction with SHC1.

Cellular localization

Cytoplasm. Nucleus. After cleavage, the intracellular domain (LRPICD) is detected both in the cytoplasm and in the nucleus and Cell membrane. Membrane, coated pit.

Images



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

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)

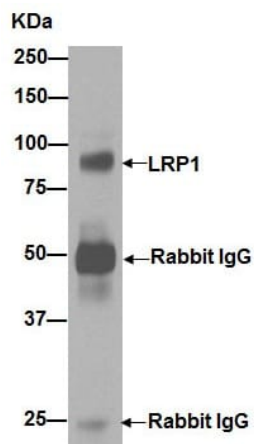
Lane 3: A549 cell lysate (20 µg)

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.



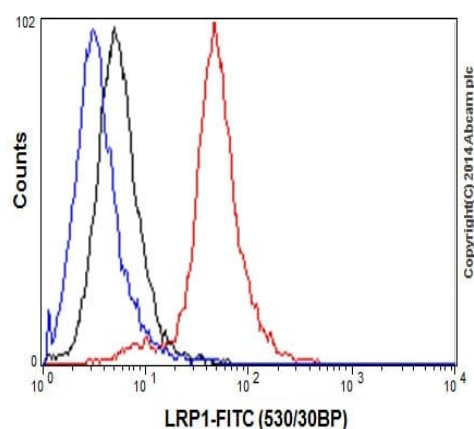
Immunoprecipitation - Anti-LRP1 antibody
[EPR3724] - BSA and Azide free (ab215997)

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.

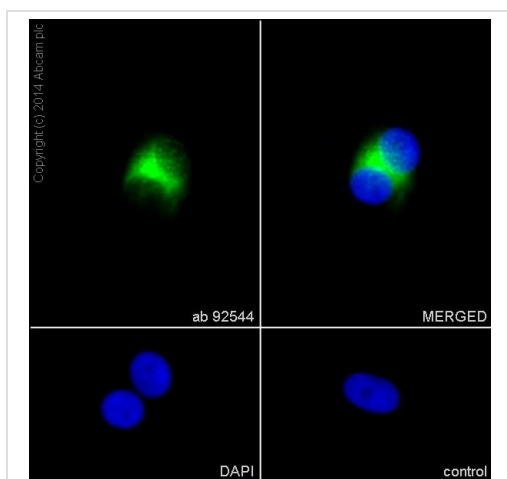
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab92544**).



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

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**).

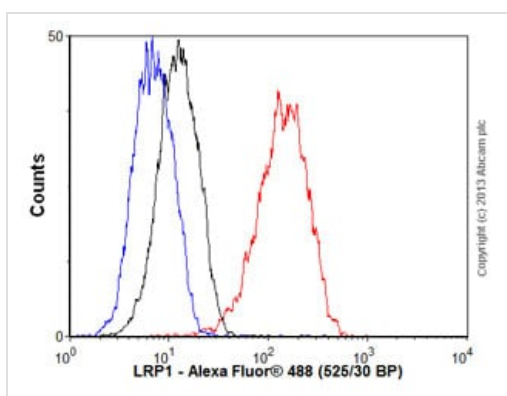


Immunocytochemistry/ Immunofluorescence - Anti-LRP1 antibody [EPR3724] - BSA and Azide free (ab215997)

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).

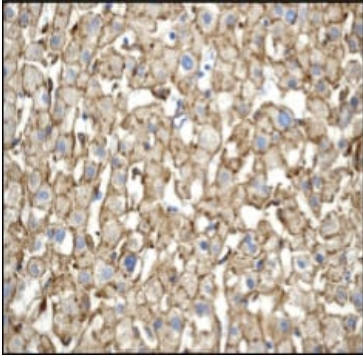
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab92544**).



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

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/1x10⁶ 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)

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.

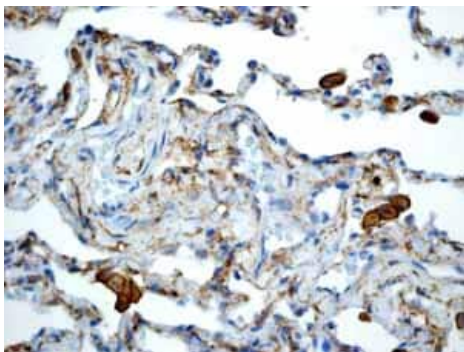


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LRP1 antibody [EPR3724] - BSA and Azide free (ab215997)

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.

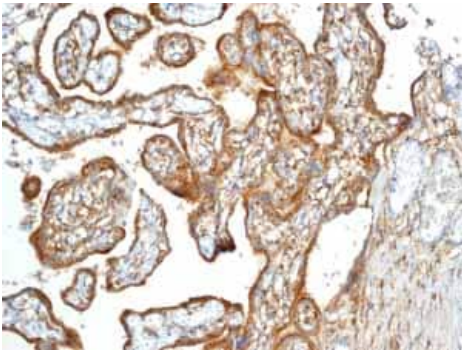


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LRP1 antibody [EPR3724] - BSA and Azide free (ab215997)

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.

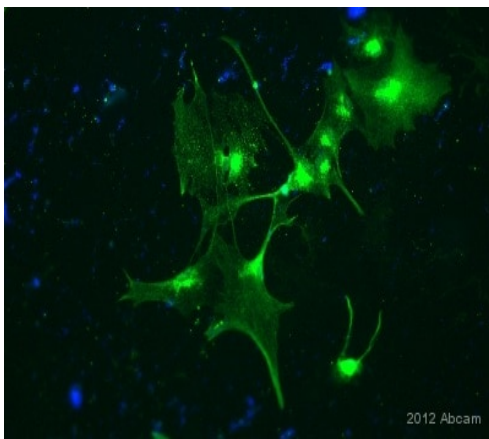


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LRP1 antibody [EPR3724] - BSA and Azide free (ab215997)

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.

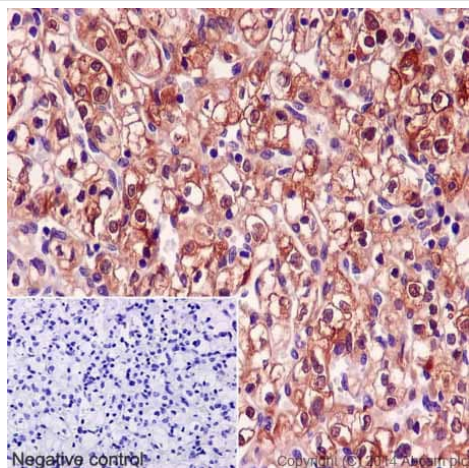


Immunocytochemistry/ Immunofluorescence - Anti-LRP1 antibody [EPR3724] - BSA and Azide free (ab215997)

This image is courtesy of an Abreview submitted by Ruma Raha-Chowdhury.

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**).



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

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.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

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

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