abcam

ab251221

Anti-Scavenging Receptor SRB2 antibody [EPR12081] - 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	EPR12081
Purification technique	Affinity purification Protein A
Concentration	1.054 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	-

Notes	-

Expected

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

Predicted

Species	Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Predicted

Species	Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Mouse
Dilution info	-
Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human, Mouse
Dilution info	-
Notes	-

Predicted

Species	Rat
Dilution info	-
Notes	-

Target data

See full target information SCARB2

Function	Acts as a lysosomal receptor for glucosylceramidase (GBA1) targeting. (Microbial infection) Acts as a receptor for enterovirus 71.

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

ab251221 is the carrier-free version of ab196651.

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.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Scavenging receptor SRB2 also known as CD36 is a transmembrane glycoprotein with a molecular mass of approximately 88 kDa. This receptor is widely expressed in various tissues including adipose tissue heart skeletal muscle and certain

	endothelial cells. It functions as a scavenger receptor by mediating the uptake of oxidized low-density lipoproteins (oxLDL) fatty acids and other ligands. CD36 is involved in several mechanisms such as lipid metabolism inflammation and cell adhesion due to its interaction with a variety of ligands and its presence on the cell surface.
Biological function summary	Scavenger receptor class B type 2 plays a significant role in the transport and metabolism of lipids. CD36 is not part of a higher-order complex but associates with integrins to mediate cell adhesion and signaling. It aids in the cellular uptake of long-chain fatty acids which is important for energy homeostasis. It also participates in the immune response by recognizing pathogens and facilitating their clearance. The receptor's ability to bind a diverse range of ligands marks it as an important player in maintaining cellular lipid balance and immune functions.
Pathways	Scavenger receptor SRB2 integrates into the fatty acid metabolism and inflammatory pathways. Within the fatty acid metabolism pathway it facilitates the uptake of fatty acids into cells working closely alongside proteins like FABP (fatty acid-binding proteins). In the context of inflammatory pathways SRB2 participates in the recognition and clearance of oxLDL influencing the activity of proteins such as TLR4 (Toll-like receptor 4) which are involved in the immune response. Through these pathways CD36 modulates critical cellular processes including lipid storage oxidation and inflammatory responses.
Associated diseases and disorders	Scavenger receptor SRB2 has significant connections to atherosclerosis and type 2 diabetes. In atherosclerosis the receptor contributes to plaque formation by mediating the uptake of oxLDL a process linked with lipoprotein metabolism. Additionally CD36's role in fatty acid uptake and utilization associates it with insulin resistance making it relevant in the pathophysiology of type 2 diabetes. Interactions with other proteins such as PPARγ (peroxisome proliferator-activated receptor gamma) in these conditions highlight the receptor's part in lipid-induced inflammation and metabolic dysfunctions.

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

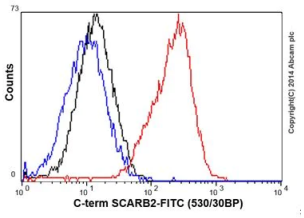
We do not recommend this combination. It is not covered by our product promise.

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.

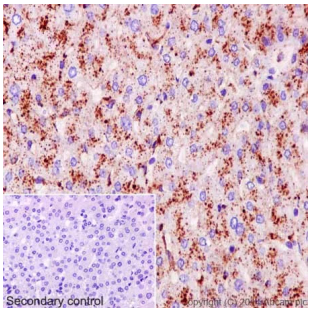
9 product images



Flow Cytometry (Intracellular) - Anti-Scavenging Receptor SRB2 antibody [EPR12081] - BSA and Azide free (ab251221)

Scavenging Receptor SRB2 Flow Cytometry (Intracellular) staining using rabbit Anti-Scavenging Receptor SRB2 antibody

This data was developed using ab196651, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of 2% paraformaldehyde-fixed MCF7 (Human breast adenocarcinoma cell line) cells labeling Scavenging Receptor SRB2 with ab196651 at 1/150 dilution (red) compared with a rabbit monoclonal IgG isotype control (black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (FITC) at 1/150 dilution was used as the secondary antibody.

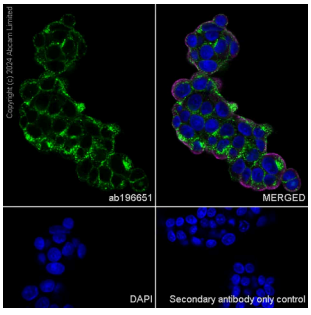


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Scavenging Receptor SRB2 antibody [EPR12081] - BSA and Azide free (ab251221)

Scavenging Receptor SRB2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Scavenging Receptor SRB2 antibody

This data was developed using ab196651, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human liver tissue labeling Scavenging Receptor SRB2 with ab196651 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) secondary antibody at 1/500 dilution. Cytoplasm staining on human liver tissue is observed. Counter stained with Hematoxylin. Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Negative control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.

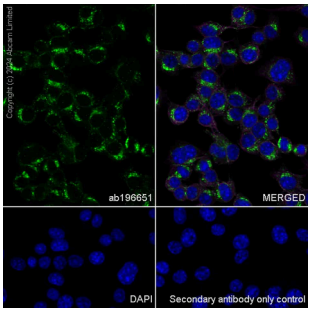


Immunocytochemistry/ Immunofluorescence - Anti-Scavenging Receptor SRB2 antibody [EPR12081] - BSA and Azide free (ab251221)

This data was developed using ab196651, the same antibody clone in a different buffer formulation.
Immunofluorescent analysis of 100% methanol-fixed, 0.1% TritonX-100 permeabilized MCF7 (human breast adenocarcinoma epithelial cell) cells labelling Scavenging Receptor SRB2 with ab196651 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed (ab150081) secondary antibody at 1/1000 dilution.

Confocal image showing cytoplasmic staining in MCF7 cell line (shown in green). The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Magenta).

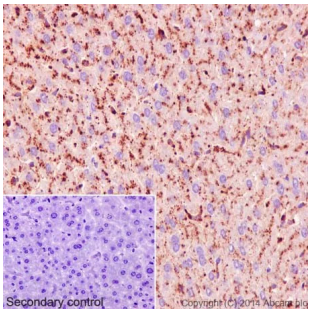


Immunocytochemistry/ Immunofluorescence - Anti-Scavenging Receptor SRB2 antibody [EPR12081] - BSA and Azide free (ab251221)

This data was developed using ab196651, the same antibody clone in a different buffer formulation.
Immunofluorescent analysis of 100% methanol-fixed, 0.1% TritonX-100 permeabilized Neuro-2a (mouse neuroblastoma neuroblast) cells labelling Scavenging Receptor SRB2 with ab196651 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed (ab150081) secondary antibody at 1/1000 dilution.

Confocal image showing cytoplasmic staining in Neuro-2a cell line (shown in green). The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Magenta).

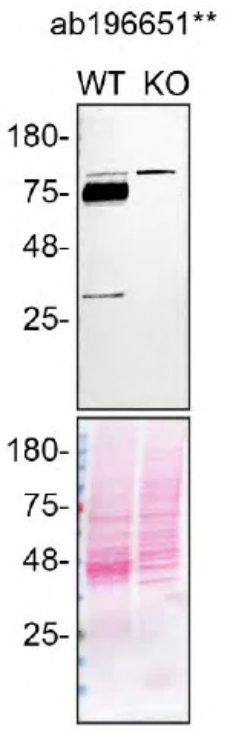


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Scavenging Receptor SRB2 antibody [EPR12081] - BSA and Azide free (ab251221)

Scavenging Receptor SRB2 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Scavenging Receptor SRB2 antibody

This data was developed using ab196651, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Mouse liver tissue labeling Scavenging Receptor SRB2 with ab196651 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) secondary antibody at 1/500 dilution. Cytoplasm staining on mouse liver tissue is observed. Counter stained with Hematoxylin. Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Negative control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/500 dilution.



Western blot - Anti-Scavenging Receptor SRB2 antibody [EPR12081] - BSA and Azide free (ab251221)

Scavenging Receptor SRB2 Western blot staining using rabbit Anti-Scavenging Receptor SRB2 antibody

This data was developed using ab196651, the same antibody clone in a different buffer formulation.

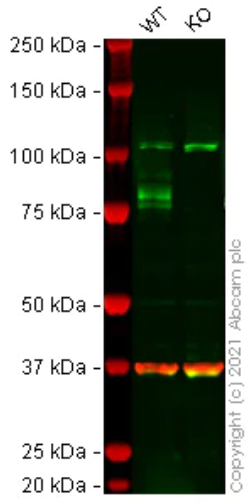
ab196651 was shown to react with SCARB2 in wild-type MCF7 cells in Western blot with loss of signal observed in SCARB2 knockout cell line ab274952. Wild-type MCF7 and SCARB2 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 5% milk in TBST for 1 hr before incubation with ab196651 overnight at 4 °C at a 1/20000 dilution. Blots were incubated with secondary antibodies at 0.2 µg/mL before imaging.

This data was 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-Scavenging Receptor SRB2 antibody [EPR12081] - C-terminal (ab196651) at 1/20000 dilution

Lane 1:
Wild-type MCF7 lysate at 30 µg

Lane 2:
SCARB2 knock-out MCF7 lysate at 30 µg

Lane 2:
Western blot - Human SCARB2 knockout MCF7 cell line (ab274952) at 30 µg



Western blot - Anti-Scavenging Receptor SRB2 antibody [EPR12081] - BSA and Azide free (ab251221)

Scavenging Receptor SRB2 Western blot staining using rabbit Anti-Scavenging Receptor SRB2 antibody

False colour image of Western blot: Anti-Scavenging Receptor SRB2 antibody [EPR12081] - C-terminal staining at 1/20000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] (ab8245) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab196651 was shown to bind specifically to Scavenging Receptor SRB2. A band was observed at 80 kDa in wild-type MCF7 cell lysates with no signal observed at this size in SCARB2 knockout cell line ab274952 (knockout cell lysate ab275010). To generate this image, wild-type and SCARB2 knockout MCF7 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (ab216776) at 1/20000 dilution.
All lanes:
Western blot - Anti-Scavenging Receptor SRB2 antibody [EPR12081] - C-terminal (ab196651) at 1/20000 dilution

Lane 1:
Wild-type MCF7 cell lysate at 20 µg

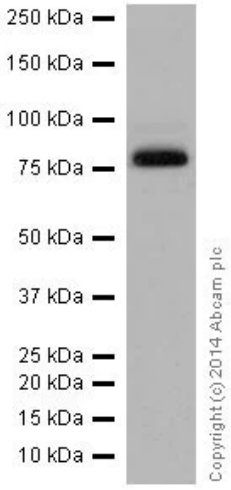
Lane 2:
SCARB2 knockout MCF7 cell lysate at 20 µg

Lane 2:
Western blot - Human SCARB2 knockout MCF7 cell line (ab274952)

Performed under reducing conditions.

Predicted band size: 54 kDa

Observed band size: 80 kDa



Western blot - Anti-Scavenging Receptor SRB2 antibody [EPR12081] - BSA and Azide free (ab251221)

This data was developed using ab196651, the same antibody clone in a different buffer formulation.
Blocking and dilution buffer: 5% NFDM/TBST.

The observed MW is consistent with what has been described in the literature (PMID: 21389126; 22272359; 23635510).

All lanes:
Western blot - Anti-Scavenging Receptor SRB2 antibody [EPR12081] - C-terminal (ab196651) at 1/20000 dilution

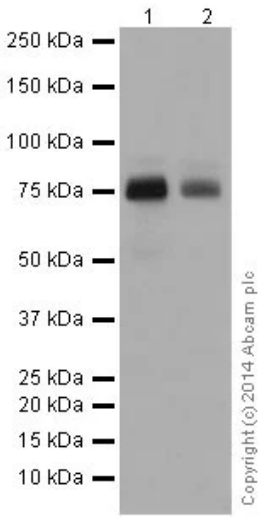
All lanes:
Human fetal kidney tissue lysate at 10 µg

Secondary

All lanes:
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 54 kDa

Observed band size: 80 kDa



Western blot - Anti-Scavenging Receptor SRB2 antibody [EPR12081] - BSA and Azide free (ab251221)

This data was developed using ab196651, the same antibody clone in a different buffer formulation.
Blocking and dilution buffer: 5% NFDM/TBST.

The observed MW is consistent with what has been described in the literature (PMID: 21389126, 22272359, and 23635510).

All lanes:
Western blot - Anti-Scavenging Receptor SRB2 antibody [EPR12081] - C-terminal (ab196651) at 1/20000 dilution

Lane 1:
MCF7 (Human breast adenocarcinoma cell line) whole cell lysate at 10 µg

Lane 2:
HeLa (Human epithelial cells from cervix adenocarcinoma) whole cell lysate at 10 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 54 kDa

Observed band size: 80 kDa

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