

Product datasheet

Anti-SCD1 antibody [EPR21963] ab236868

KO VALIDATED Recombinant RabMAb

[2 References](#) [11 Images](#)

Overview

Product name	Anti-SCD1 antibody [EPR21963]
Description	Rabbit monoclonal [EPR21963] to SCD1
Host species	Rabbit
Specificity	ab236868 is recommended for human only in WB.
Tested applications	Suitable for: Flow Cyt (Intra), WB, IHC-P, ICC/IF, IP
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HepG2, HEK-293 and SK-MEL-28 whole cell lysate. IHC-P: Human adipose tissue within cardiac muscle tissue; Mouse adipose tissue of stomach tissue; Rat adipose tissue of pancreas tissue. ICC/IF: HepG2 and SK-MEL-28 cells. Flow: HepG2 cells. IP: HepG2 and HEK-293 whole cell lysate.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p>
Purity	Protein A purified
Clonality	Monoclonal

Clone number EPR21963
Isotype IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab236868 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)		1/500.
WB		1/1000. Predicted molecular weight: 42 kDa. ab236868 is recommended for human only in WB.
IHC-P		1/2000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ICC/IF		1/100.
IP		1/30.

Target

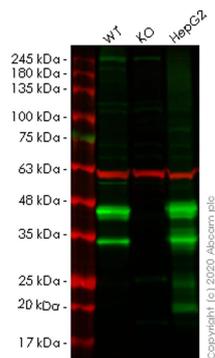
Function Terminal component of the liver microsomal stearyl-CoA desaturase system, that utilizes O(2) and electrons from reduced cytochrome b5 to catalyze the insertion of a double bond into a spectrum of fatty acyl-CoA substrates including palmitoyl-CoA and stearyl-CoA.

Sequence similarities Belongs to the fatty acid desaturase family.

Domain The histidine box domains may contain the active site and/or be involved in metal ion binding.

Cellular localization Endoplasmic reticulum membrane.

Images



Western blot - Anti-SCD1 antibody [EPR21963] (ab236868)

All lanes : Anti-SCD1 antibody [EPR21963] (ab236868) at 1/1000 dilution

Lane 1 : Wild-type HeLa cell lysate

Lane 2 : SCD knockout HeLa cell lysate

Lane 3 : HepG2 cell lysate

Lysates/proteins at 20 µg per lane.

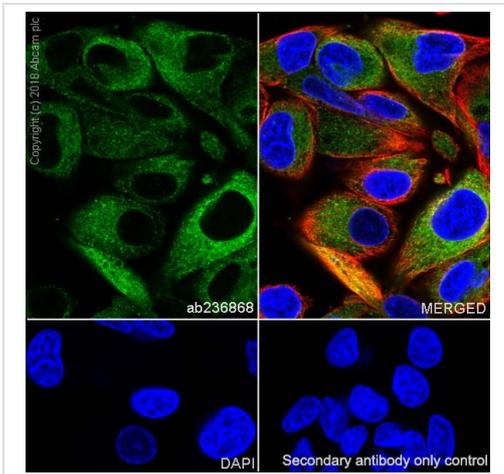
Secondary

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

Predicted band size: 42 kDa

anes 1-3: Merged signal (red and green). Green - ab236868. Red - loading control ab8245 observed at 50 kDa.

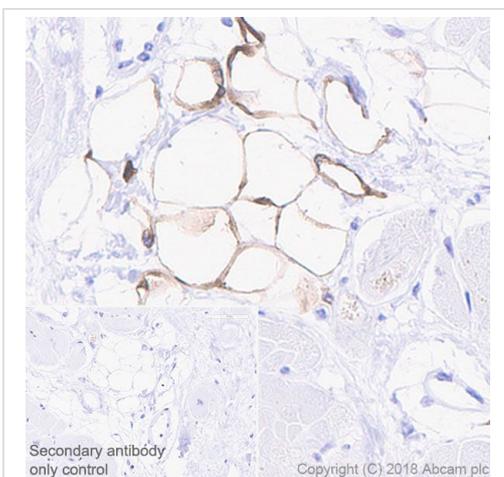
ab236868 Anti-SCD1 antibody [EPR21963] was shown to specifically react with SCD1 in wild-type HeLa cells. Loss of signal was observed when knockout cell line ab265220 (knockout cell lysate ab257658) was used. Wild-type and SCD1 knockout samples were subjected to SDS-PAGE. ab236868 and Anti-tubulin antibody [DM1A] - Loading Control (ab7291) 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 10000 dilution for 1 hour at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-SCD1 antibody [EPR21963] (ab236868)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HepG2 (Human hepatocellular carcinoma epithelial cell) cells labeling SCD1 with ab236868 at 1/100 dilution, followed by ab150077 AlexaFluor®488 Goat anti-Rabbit secondary antibody at 1/1000 dilution (Green). Confocal image showing cytoplasmic staining in HepG2 cell line. Counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) at 1/200 dilution. Nuclear counterstain is DAPI.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab150077 AlexaFluor®488 Goat anti-Rabbit secondary at 1/1000 dilution.

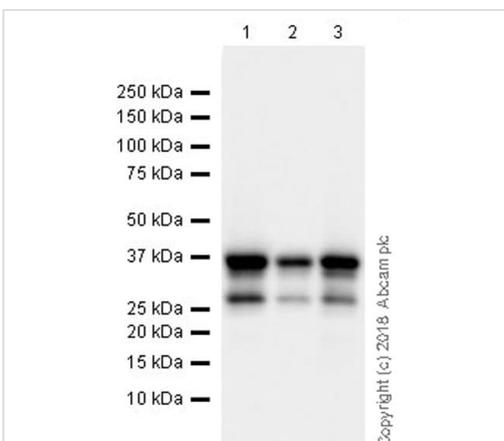


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SCD1 antibody [EPR21963] (ab236868)

Immunohistochemical analysis of paraffin-embedded human adipose tissue within cardiac muscle tissue labeling SCD1 with ab236868 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Positive staining in human adipose cells in cardiac muscle (PMID: 15907797) is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ready to use.

Heat-mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0).



Western blot - Anti-SCD1 antibody [EPR21963] (ab236868)

All lanes : Anti-SCD1 antibody [EPR21963] (ab236868) at 1/1000 dilution

Lane 1 : HepG2 (human hepatocellular carcinoma epithelial cell), whole cell lysate

Lane 2 : HEK-293 (human embryonic kidney epithelial cell), whole cell lysate

Lane 3 : SK-MEL-28 (human malignant melanoma), whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/50000

dilution

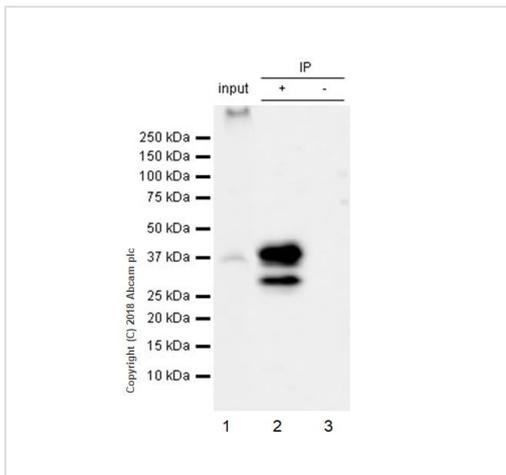
Predicted band size: 42 kDa

Exposure time: 4 seconds

Blocking/dilution buffer: 5% NFDm/TBST.

The expression profile observed is consistent with what has been described in the literature (PMID: 20876744; PMID: 9843580; PMID: 17449569). The full-length protein migrates at 37 kDa; the 28 kDa fragment may represent an SCD1 cleavage product.

We recommend that customers **do not boil** samples to prevent protein aggregation.



Immunoprecipitation - Anti-SCD1 antibody
[EPR21963] (ab236868)

SCD1 was immunoprecipitated from 0.35 mg of HEK-293 (Human embryonic kidney epithelial cell) whole cell lysate with ab236868 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab236868 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used for detection at 1/5000 dilution.

Lane 1: HEK-293 whole cell lysate 10 µg (input).

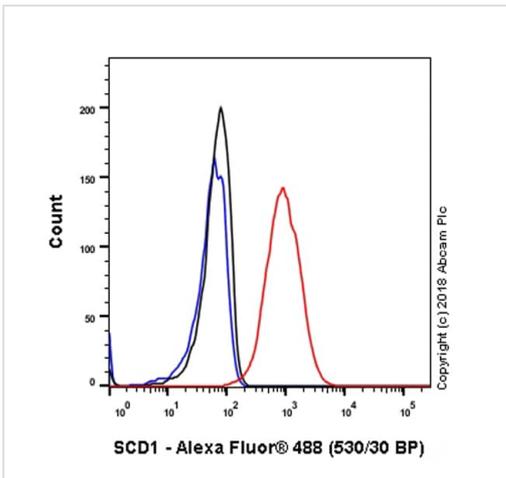
Lane 2: ab236868 IP in HEK-293 whole cell lysate (+).

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab236868 in HEK-293 whole cell lysate (-).

Blocking and dilution buffer: 5% NFDm/TBST.

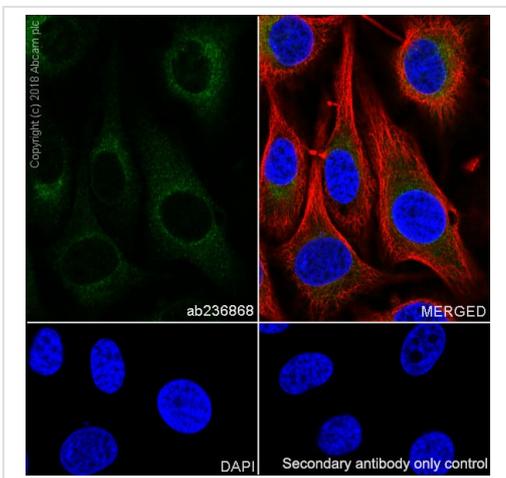
Exposure time: 30 seconds.

The expression profile observed is consistent with what has been described in the literature (PMID: 20876744; PMID: 9843580; PMID: 17449569). The full-length protein migrates at 37 kDa; the 28 kDa fragment may represent an SCD1 cleavage product.



Flow Cytometry (Intracellular) - Anti-SCD1 antibody [EPR21963] (ab236868)

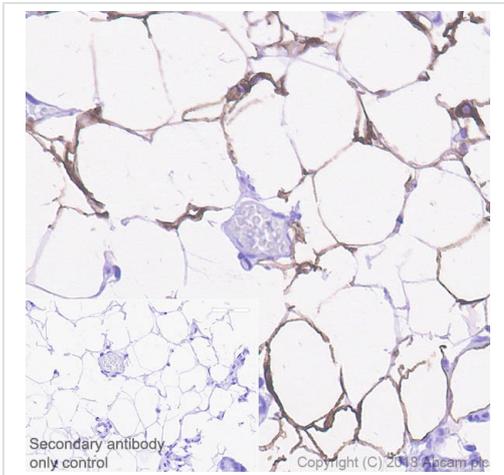
Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol permeabilized HepG2 (Human hepatocellular carcinoma epithelial cell) cell line labeling SCD1 with ab236868 at 1/500 dilution (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (Blue). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 was used as the secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-SCD1 antibody [EPR21963] (ab236868)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized SK-MEL-28 (Human malignant melanoma) cells labeling SCD1 with ab236868 at 1/100 dilution, followed by ab150077 AlexaFluor®488 Goat anti-Rabbit secondary antibody at 1/1000 dilution (Green). Confocal image showing cytoplasmic staining in SK-MEL-28 cell line. Counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) at 1/200 dilution. Nuclear counterstain is DAPI.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab150077 AlexaFluor®488 Goat anti-Rabbit secondary at 1/1000 dilution.

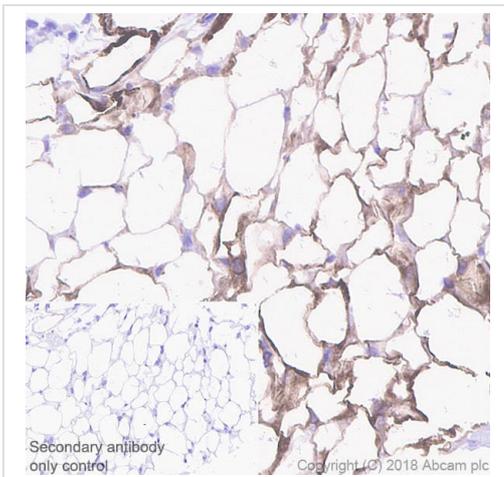


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SCD1 antibody [EPR21963] (ab236868)

Immunohistochemical analysis of paraffin-embedded rat adipose tissue of pancreas tissue labeling SCD1 with ab236868 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Positive staining in adipose cells in rat pancreas (PMID: 11500518) is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ready to use.

Heat-mediated antigen retrieval using [ab93684](#) (Tris/EDTA buffer, pH 9.0).

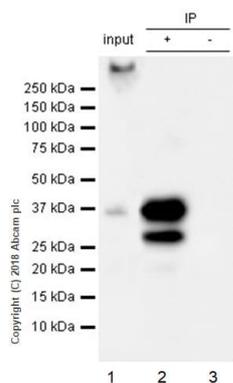


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SCD1 antibody [EPR21963] (ab236868)

Immunohistochemical analysis of paraffin-embedded mouse adipose tissue of stomach tissue labeling SCD1 with ab236868 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Positive staining in adipose cells in mouse stomach (PMID: 11500518) is observed. Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ready to use.

Heat-mediated antigen retrieval using [ab93684](#) (Tris/EDTA buffer, pH 9.0).



Immunoprecipitation - Anti-SCD1 antibody
[EPR21963] (ab236868)

SCD1 was immunoprecipitated from 10 µg of HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysate with ab236868 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab236868 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used for detection at 1/5000 dilution.

Lane 1: HepG2 whole cell lysate 10 µg (input).

Lane 2: ab236868 IP in HepG2 whole cell lysate (+).

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab236868 in HepG2 whole cell lysate (-).

Blocking and dilution buffer: 5% NFDN/TBST.

Exposure time: 30 seconds.

The expression profile observed is consistent with what has been described in the literature (PMID: 20876744; PMID: 9843580; PMID: 17449569). The full-length protein migrates at 37 kDa; the 28 kDa fragment may represent an SCD1 cleavage product.

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-SCD1 antibody [EPR21963] (ab236868)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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