abcam

Product datasheet

Anti-SCD1 antibody [EPR21963] - BSA and Azide free ab238171

Recombinant RabMAb

8 Images

Overview

Product name	Anti-SCD1 antibody [EPR21963] - BSA and Azide free
Description	Rabbit monoclonal [EPR21963] to SCD1 - BSA and Azide free
Host species	Rabbit
Specificity	ab238171 is recommended for human only in WB.
Tested applications	**Suitable for:** WB, IHC-P, ICC/IF, Flow Cyt, IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Recombinant fragment within Human SCD1 aa 1 to the C-terminus. The exact sequence is proprietary. Database link: O00767
Positive control	IHC-P: Human adipose tissue within cardiac muscle tissue.
General notes	Ab238171 is the carrier-free version of ab236868. This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes. Our carrier-free formats are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency. 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. ab238171 is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm. *Maxpar® is a trademark of Fluidigm Canada Inc.*

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	Constituent: PBS

Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR21963
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab238171** in the following tested applications.

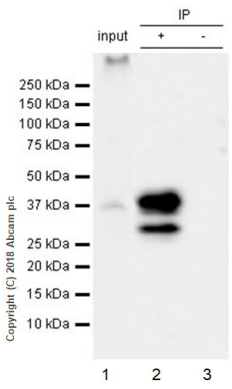
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Predicted molecular weight: 42 kDa. ab238171 is recommended for **human only** in WB.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ICC/IF		Use at an assay dependent concentration.
Flow Cyt		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.

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 stearoyl-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



Immunoprecipitation - Anti-SCD1 antibody [EPR21963] - BSA and Azide free (ab238171)

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.

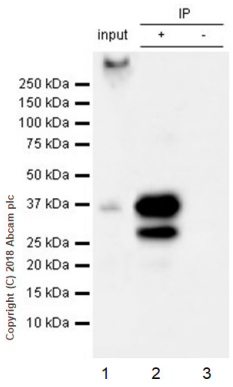
Lane 1: HEK-293 whole cell lysate 10 µg (input).
Lane 2: ab236868 IP in HEK-293 whole cell lysate (+).
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab236868 in HEK-293 whole cell lysate (-).

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab236868).



Immunoprecipitation - Anti-SCD1 antibody [EPR21963] - BSA and Azide free (ab238171)

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% 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.

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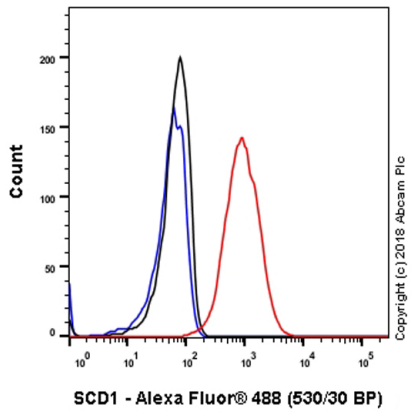
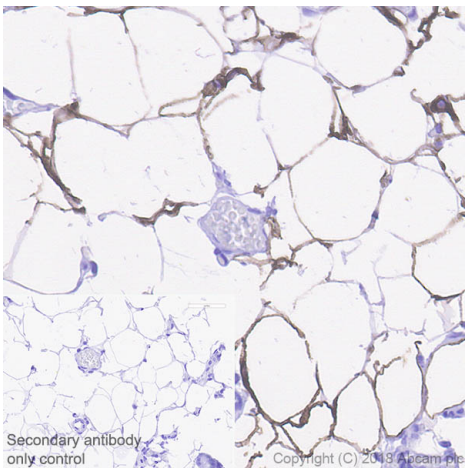


Flow Cytometry - Anti-SCD1 antibody [EPR21963] - BSA and Azide free (ab238171)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab236868).



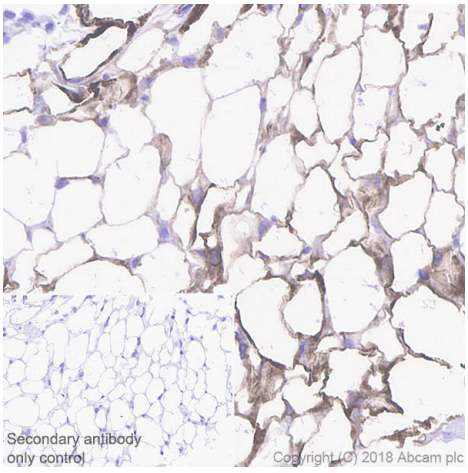
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SCD1 antibody [EPR21963] - BSA and Azide free (ab238171)

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).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab236868).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SCD1 antibody [EPR21963] - BSA and Azide free (ab238171)

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).

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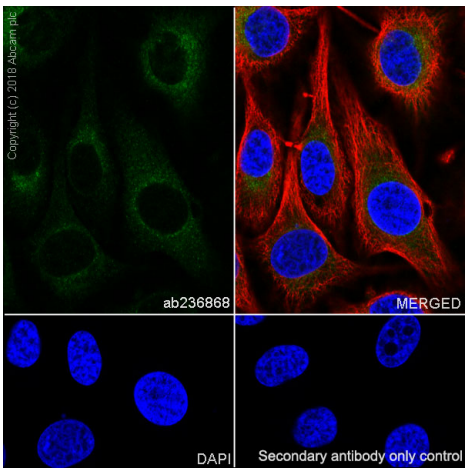
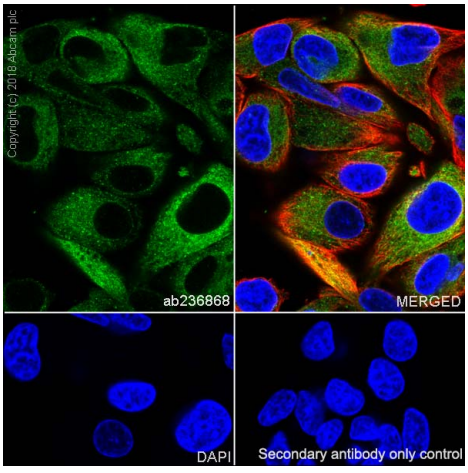


Immunocytochemistry/ Immunofluorescence - Anti-SCD1 antibody [EPR21963] - BSA and Azide free (ab238171)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab236868).

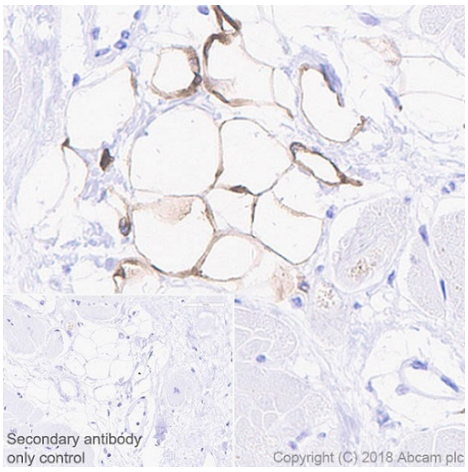


Immunocytochemistry/ Immunofluorescence - Anti-SCD1 antibody [EPR21963] - BSA and Azide free (ab238171)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab236868).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SCD1 antibody [EPR21963] - BSA and Azide free (ab238171)

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).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol and sodium azide (ab236868).

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