abcam

ab227083

Anti-Fatty Acid Synthase antibody [EPR7465] - 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	EPR7465
Purification technique	Affinity purification Protein A
Dissociation constant	1.58 x 10^{-11} M
Concentration	0.986 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Mouse, Rat, Human

Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/5000
Notes	-

Species	Mouse
Dilution info	1/5000
Notes	-

Species	Rat
Dilution info	1/5000
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/50
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/50
Notes	ab199376 - Rabbit monoclonal IgG (Low endotoxin, Azide free), is suitable for use as an isotype control with this antibody.

Expected

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

Target data

See full target information FASN

Function Fatty acid synthetase is a multifunctional enzyme that catalyzes the de novo biosynthesis of long-chain saturated fatty acids starting from acetyl-CoA and malonyl-CoA in the presence of NADPH. This multifunctional protein contains 7 catalytic activities and a site for the binding of the prosthetic group 4'-phosphopantetheine of the acyl carrier protein ([ACP]) domain. (Microbial infection) Fatty acid synthetase activity is required for SARS coronavirus-2/SARS-CoV-2 replication.

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

ab227083 is the carrier-free version of ab128856.

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

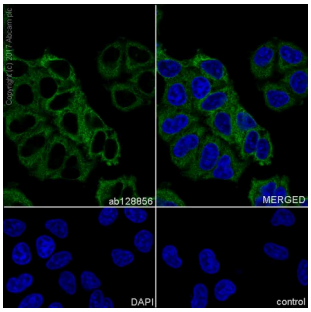
We do not recommend this combination. It is not covered by our product promise.

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.

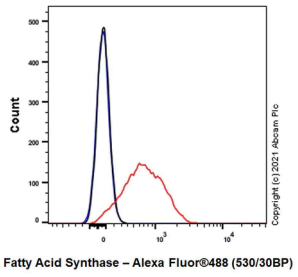
4 product images



Immunocytochemistry/ Immunofluorescence - Anti-Fatty Acid Synthase antibody [EPR7465] - BSA and Azide free (ab227083)

Fatty Acid Synthase Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Fatty Acid Synthase antibody

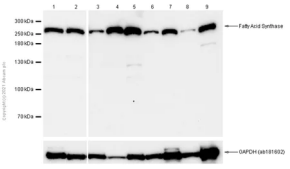
This data was developed using ab128856, the same antibody clone in a different buffer formulation.
Immunocytochemistry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling Fatty Acid Synthase with Purified ab128856 at 1:50 dilution (4.5 µg/ml). Cells were fixed in 100% Methanol and permeabilized with 0.1% tritonX-100. Cells were counterstained with . Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Flow Cytometry (Intracellular) - Anti-Fatty Acid Synthase antibody [EPR7465] - BSA and Azide free (ab227083)

Fatty Acid Synthase Flow Cytometry (Intracellular) staining using rabbit Anti-Fatty Acid Synthase antibody

This data was developed using ab128856, the same antibody clone in a different buffer formulation.
Flow Cytometry analysis of A549 (Human lung carcinoma epithelial cell) cells labelling Fatty Acid Synthase with Purified ab128856 at 1:50 dilution (10 µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) secondary antibody was used at 1:2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabelled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Western blot - Anti-Fatty Acid Synthase antibody [EPR7465] - BSA and Azide free (ab227083)

Fatty Acid Synthase Western blot staining using rabbit Anti-Fatty Acid Synthase antibody

This data was developed using ab128856, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-Fatty Acid Synthase antibody [EPR7465] (ab128856) at 1/5000 dilution

Lane 1:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 2:
HEK-293 (Human embryonic kidney epithelial cell) whole cell lysate at 20 µg

Lane 3:
A549 (Human lung carcinoma epithelial cell) whole cell lysate at 20 µg

Lane 4:
MOLT-4 (Human lymphoblastic leukemia T lymphoblast) whole cell lysate at 20 µg

Lane 5:
SH-SY5Y (Human neuroblastoma epithelial cell) whole cell lysate at 20 µg

Lane 6:
Mouse brain lysate at 20 µg

Lane 7:
NIH/3T3 (Mouse embryonic fibroblast) whole cell lysate at 20 µg

Lane 8:
Rat brain lysate at 20 µg

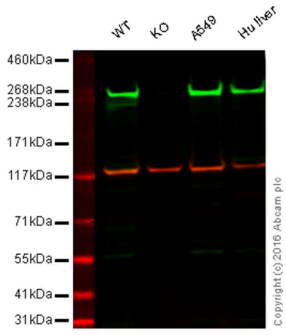
Lane 9:
L6 (Rat skeletal muscle myoblast) whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 273 kDa

Observed band size: 237 kDa, 273 kDa



Western blot - Anti-Fatty Acid Synthase antibody [EPR7465] - BSA and Azide free (ab227083)

Fatty Acid Synthase Western blot staining using rabbit Anti-Fatty Acid Synthase antibody

This WB data was generated using the same anti-Fatty Acid Synthase antibody clone, EPR7465, in a different buffer formulation (cat# ab128856).
Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: Fatty Acid Synthase knockout HAP1 cell lysate (20 µg)
Lane 3: A549 cell lysate (20 µg)
Lane 4: Hu liver tissue lysate (20 µg)
Lanes 1 - 4: Merged signal (red and green). Green - ab128856 observed at 250 kDa. Red - loading control, ab18058, observed at 124 kDa.

ab128856 was shown to specifically react with Fatty Acid Synthase when Fatty Acid Synthase knockout samples were used. Wild-type and Fatty Acid Synthase knockout samples were subjected to SDS-PAGE. ab128856 and ab18058 (loading control to Vinculin) were diluted at 1/1000 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 h at room temperature before imaging.

All lanes:
Western blot - Anti-Fatty Acid Synthase antibody [EPR7465] (ab128856)

Predicted band size: 273 kDa

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