

## Product datasheet

# Anti-HADHA antibody [EPR17939] - BSA and Azide free ab242411

KO VALIDATED Recombinant RabMAb

7 Images

### Overview

<b>Product name</b>	Anti-HADHA antibody [EPR17939] - BSA and Azide free
<b>Description</b>	Rabbit monoclonal [EPR17939] to HADHA - BSA and Azide free
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> ICC/IF, IP, WB, Flow Cyt (Intra)
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: HeLa, Jurkat, HEK293, SH-SY5Y and HepG2 whole cell lysates; Human fetal brain, fetal kidney and fetal liver lysates; Mouse kidney, rat heart and rat kidney lysates. ICC/IF: Jurkat and HeLa cells. IP: HEK293 whole cell lysate. Flow Cyt (intra): Jurkat (human acute T cell leukemia).
<b>General notes</b>	<p>ab242411 is the carrier-free version of <a href="#">ab200652</a>.</p> <p>Our <b>carrier-free</b> 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.</p> <p>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.</p> <p>Use our <b>conjugation kits</b> for antibody conjugates that are ready-to-use in as little as 20 minutes with &lt;1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar<sup>®</sup> is a trademark of Fluidigm Canada Inc.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"><li>- High batch-to-batch consistency and reproducibility</li><li>- Improved sensitivity and specificity</li><li>- Long-term security of supply</li><li>- Animal-free production</li></ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit</p>

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

## Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C. Do Not Freeze.
<b>Storage buffer</b>	pH: 7.2 Constituent: PBS
<b>Carrier free</b>	Yes
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR17939
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab242411 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
ICC/IF		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Detects a band of approximately 74 kDa (predicted molecular weight: 83 kDa).
Flow Cyt (Intra)		Use at an assay dependent concentration.

## Target

<b>Function</b>	Bifunctional subunit.
<b>Pathway</b>	Lipid metabolism; fatty acid beta-oxidation.
<b>Involvement in disease</b>	<p>Defects in HADHA are a cause of trifunctional protein deficiency (TFP deficiency) [MIM:609015]. The clinical manifestations are very variable and include hypoglycemia, cardiomyopathy and sudden death. Phenotypes with mainly hepatic and neuromyopathic involvement can also be distinguished. Biochemically, TFP deficiency is defined by the loss of all enzyme activities of the TFP complex.</p> <p>Defects in HADHA are the cause of long-chain 3-hydroxyl-CoA dehydrogenase deficiency (LCHAD deficiency) [MIM:609016]. The clinical features are very similar to TFP deficiency. Biochemically, LCHAD deficiency is characterized by reduced long-chain 3-hydroxyl-CoA dehydrogenase activity, while the other enzyme activities of the TFP complex are normal or only slightly reduced.</p> <p>Defects in HADHA are a cause of maternal acute fatty liver of pregnancy (AFLP) [MIM:609016].</p>

AFLP is a severe maternal illness occurring during pregnancies with affected fetuses. This disease is associated with LCHAD deficiency and characterized by sudden unexplained infant death or hypoglycemia and abnormal liver enzymes (Reye-like syndrome).

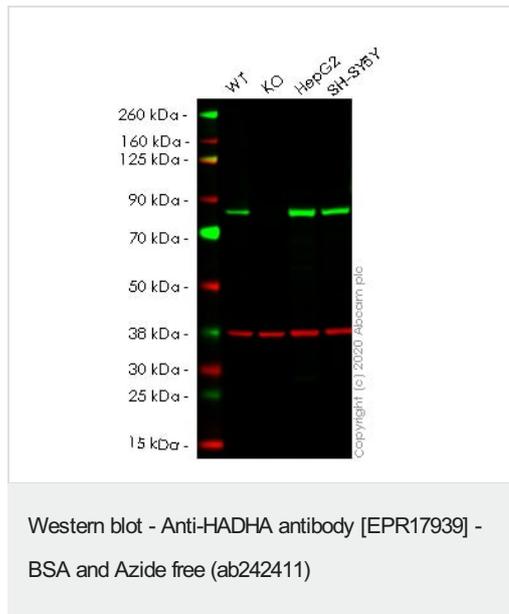
### Sequence similarities

In the N-terminal section; belongs to the enoyl-CoA hydratase/isomerase family.  
In the central section; belongs to the 3-hydroxyacyl-CoA dehydrogenase family.

### Cellular localization

Mitochondrion.

## Images



**All lanes :** Anti-HADHA antibody [EPR17939] (**ab200652**) at 1/1000 dilution

**Lane 1 :** Wild-type HEK-293T cell lysate

**Lane 2 :** HADHA knockout HEK-293T cell lysate

**Lane 3 :** HepG2 cell lysate

**Lane 4 :** SH-SY5Y cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

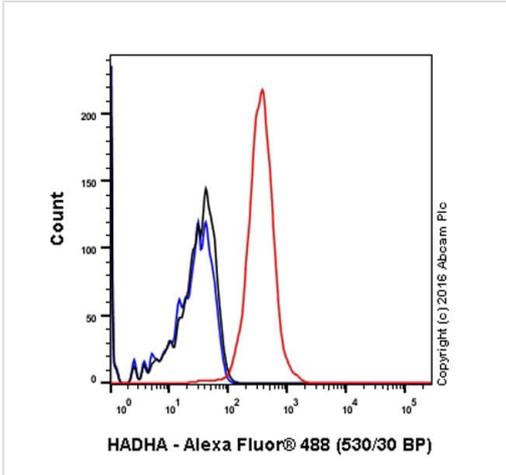
**Predicted band size:** 83 kDa

**Observed band size:** 82 kDa

This data was developed using the same antibody clone in a different buffer formulation (**ab200652**).

**Lanes 1-4:** Merged signal (red and green). Green - **ab200652** observed at 82 kDa. Red - loading control **ab8245** observed at 37 kDa.

**ab200652** Anti-HADHA antibody [EPR17939] was shown to specifically react with HADHA in wild-type HEK-293T cells. Loss of signal was observed when knockout cell line **ab266274** (knockout cell lysate **ab257464**) was used. Wild-type and HADHA knockout samples were subjected to SDS-PAGE. **ab200652** and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 1000 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 20000 dilution for 1 hour at room temperature before imaging.



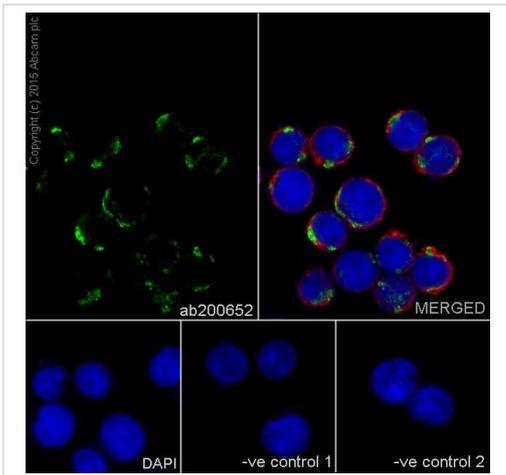
Flow Cytometry (Intracellular) - Anti-HADHA antibody [EPR17939] - BSA and Azide free (ab242411)

**ab200652** staining HADHA in Jurkat (human acute T cell leukemia) cells by intracellular flow cytometry. Cells were fixed with 4% paraformaldehyde and the sample was incubated with the primary antibody at a dilution of 1/2200. A goat anti rabbit IgG (Alexa Fluor® 488) at a dilution of 1/2000 was used as the secondary antibody.

Isotype control: Rabbit monoclonal IgG (Black)

Unlabelled control: Cell without incubation with primary antibody and secondary antibody (Blue)

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab200652**)



Immunocytochemistry/ Immunofluorescence - Anti-HADHA antibody [EPR17939] - BSA and Azide free (ab242411)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized Jurkat (Human T cell leukemia cells from peripheral blood) cells labeling HADHA with **ab200652** at 1/250 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/500 dilution (green).

Cytoplasm staining on Jurkat cell line is observed.

The nuclear counter stain is DAPI (blue).

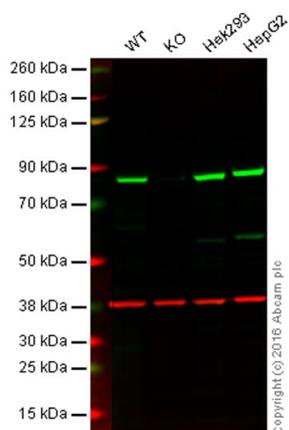
Tubulin is detected with **ab7291** (anti-Tubulin mouse mAb) at 1/1000 dilution and **ab150120** (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution (red).

The negative controls are as follows:

-ve control 1: **ab200652** at 1/250 dilution followed by **ab150120** (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution.

-ve control 2: **ab7291** (anti-Tubulin mouse mAb) at 1/1000 dilution followed by **ab150077** (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/500 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab200652**)



Western blot - Anti-HADHA antibody [EPR17939] - BSA and Azide free (ab242411)

**All lanes** : Anti-HADHA antibody [EPR17939] ([ab200652](#)) at 1/1000 dilution

**Lane 1** : Wild-type HAP1 cell lysate

**Lane 2** : HADHA knockout HAP1 cell lysate

**Lane 3** : HEK293 cell lysate

**Lane 4** : HepG2 cell lysate

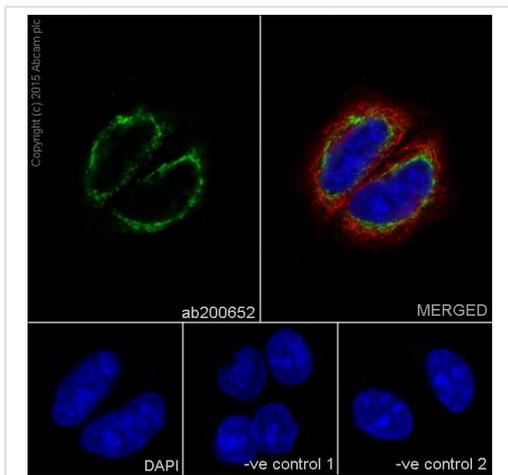
Lysates/proteins at 20 µg per lane.

**Predicted band size:** 83 kDa

**Lanes 1 - 4:** Merged signal (red and green). Green - [ab200652](#) observed at 82 kDa. Red - loading control, [ab8245](#), observed at 37 kDa.

[ab200652](#) was shown to specifically react with HADHA when HADHA knockout samples were used. Wild-type and HADHA knockout samples were subjected to SDS-PAGE. [ab200652](#) and [ab8245](#) (loading control to GAPDH) 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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab200652](#))



Immunocytochemistry/ Immunofluorescence - Anti-HADHA antibody [EPR17939] - BSA and Azide free (ab242411)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (Human epithelial cells from cervix adenocarcinoma) cells labeling HADHA with **ab200652** at 1/250 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/500 dilution (green).

Cytoplasm staining on HeLa cell line is observed.

The nuclear counter stain is DAPI (blue).

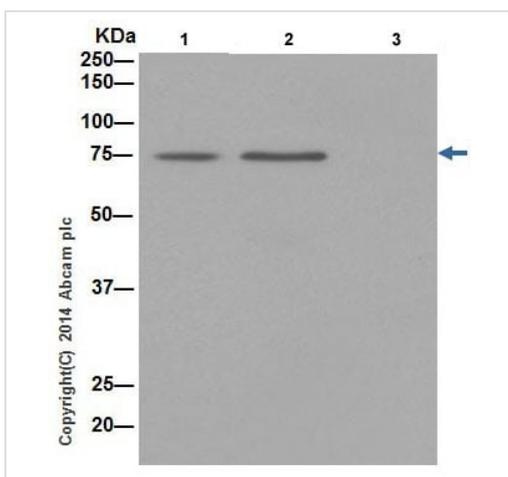
Tubulin is detected with **ab7291** (anti-Tubulin mouse mAb) at 1/1000 dilution and **ab150120** (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution (red).

The negative controls are as follows:

-ve control 1: **ab200652** at 1/250 dilution followed by **ab150120** (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution.

-ve control 2: **ab7291** (anti-Tubulin mouse mAb) at 1/1000 dilution followed by **ab150077** (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/500 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab200652**)



Immunoprecipitation - Anti-HADHA antibody [EPR17939] - BSA and Azide free (ab242411)

HADHA was immunoprecipitated from 1mg of HEK293 (Human embryonic kidney) whole cell lysate with **ab200652** at 1/30 dilution.

Western blot was performed from the immunoprecipitate using **ab200652** at 1/2000 dilution.

Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG, was used as secondary antibody at 1/1500 dilution.

Lane 1: HEK293 whole cell lysate 10 µg (Input).

Lane 2: **ab200652** IP in HEK293 whole cell lysate.

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of **ab200652** in HEK293 whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDN/TBST.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab200652**)

### 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-HADHA antibody [EPR17939] - BSA and Azide free (ab242411)

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

### Our Abpromise to you: Quality guaranteed and expert technical support

---

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

### Terms and conditions

---

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors