

## Product datasheet

# Anti-HMGCS2 antibody [EPR8642] ab137043

Recombinant RabMAb

★★★★★ [6 Abreviews](#) [29 References](#) [10 Images](#)

### Overview

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<b>Product name</b>	Anti-HMGCS2 antibody [EPR8642]
<b>Description</b>	Rabbit monoclonal [EPR8642] to HMGCS2
<b>Host species</b>	Rabbit
<b>Specificity</b>	Does not cross react with HMGCS1.
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, WB <b>Unsuitable for:</b> Flow Cyt or ICC/IF
<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: Human fetal liver, mouse kidney and rat kidney tissue lysates and Caco 2 cell lysate. IHC-P: Human, mouse and rat liver tissues and human colon tissue.
<b>General notes</b>	<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 monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 40% Glycerol, 0.05% BSA, 59% PBS
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal

Clone number                   EPR8642  
Isotype                            IgG

## Applications

**The Abpromise guarantee**           Our **Abpromise guarantee** covers the use of ab137043 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
IHC-P	★★★★★ (4)	1/50 - 1/500. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See <b>IHC antigen retrieval protocols</b> .
WB		1/1000 - 1/10000. Detects a band of approximately 50 kDa (predicted molecular weight: 57 kDa).

**Application notes**                    Is unsuitable for Flow Cyt or ICC/IF.

## Target

**Function**                                This enzyme condenses acetyl-CoA with acetoacetyl-CoA to form HMG-CoA, which is the substrate for HMG-CoA reductase.

**Tissue specificity**                    High expression in liver and colon. Low expression in testis, heart, skeletal muscle and kidney.

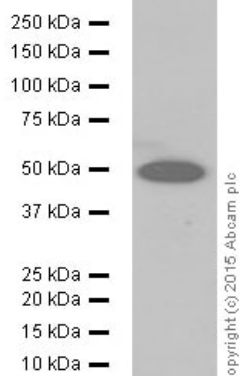
**Pathway**                                 Metabolic intermediate biosynthesis; (R)-mevalonate biosynthesis; (R)-mevalonate from acetyl-CoA: step 2/3.

**Involvement in disease**             Defects in HMGCS2 are the cause of HMG-CoA synthase deficiency (HMGCS deficiency) [MIM:605911]; also known as deficiency of mitochondrial 3-hydroxy-3-methylglutaryl-CoA synthase 2. Affected individuals present with severe hypoketotic hypoglycemia, mild hepatomegaly, or fatty liver, and a nondiagnostic pattern of urinary organic acids with increase of medium and short chain dicarboxylic acids.

**Sequence similarities**                 Belongs to the HMG-CoA synthase family.

**Cellular localization**                 Mitochondrion.

## Images



Western blot - Anti-HMGCS2 antibody [EPR8642]  
(ab137043)

Anti-HMGCS2 antibody [EPR8642] (ab137043) at 1/10000 dilution  
(purified) + Human fetal liver tissue lysate at 10  $\mu$ g

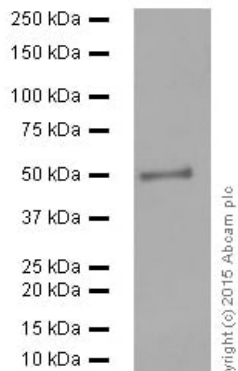
**Secondary**

HRP-conjugated goat anti-rabbit IgG (specific to the non-reduced  
form of IgG) at 1/1000 dilution

**Predicted band size:** 57 kDa

**Observed band size:** 50 kDa

Blocking and dilution buffer: 5% NFDM /TBST.



Western blot - Anti-HMGCS2 antibody [EPR8642]  
(ab137043)

Anti-HMGCS2 antibody [EPR8642] (ab137043) at 1/1000 dilution  
(purified) + Rat kidney tissue lysate at 20  $\mu$ g

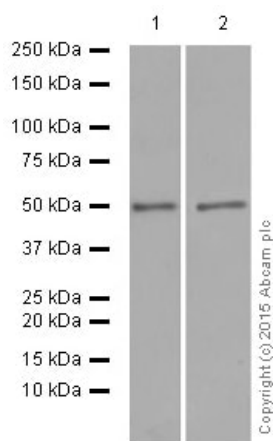
**Secondary**

HRP-conjugated goat anti-rabbit IgG (specific to the non-reduced  
form of IgG) at 1/1000 dilution

**Predicted band size:** 57 kDa

**Observed band size:** 50 kDa

Blocking and dilution buffer: 5% NFDM /TBST.



Western blot - Anti-HMGCS2 antibody [EPR8642]  
(ab137043)

**All lanes :** Anti-HMGCS2 antibody [EPR8642] (ab137043) at 1/5000 dilution (purified)

**Lane 1 :** Caco-2 whole cell lysate

**Lane 2 :** Mouse kidney tissue lysate

Lysates/proteins at 20 µg per lane.

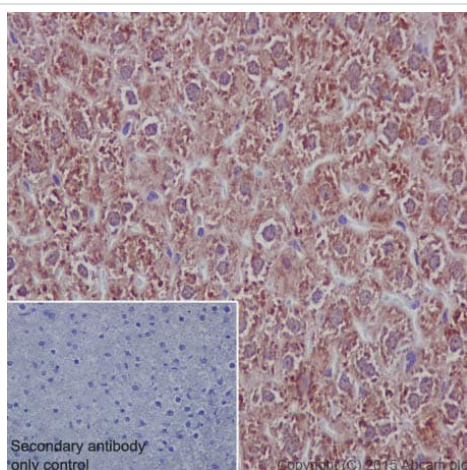
#### Secondary

**All lanes :** HRP-conjugated goat anti-rabbit IgG (specific to the non-reduced form of IgG) at 1/1000 dilution

**Predicted band size:** 57 kDa

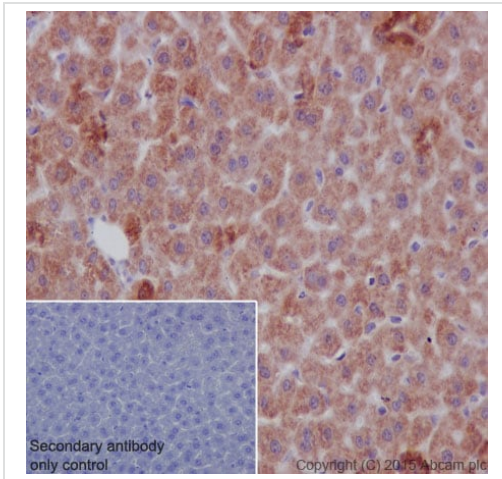
**Observed band size:** 50 kDa

Blocking and dilution buffer: 5% NFDM /TBST.



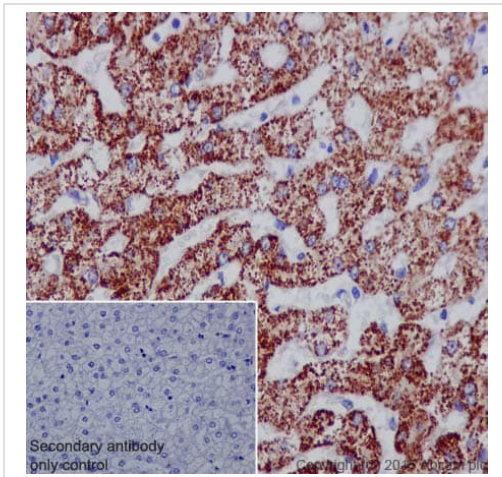
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HMGCS2 antibody [EPR8642] (ab137043)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat liver tissue labelling HMGCS2 with purified ab137043 at a dilution of 1/500. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. [ab97051](#), a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.



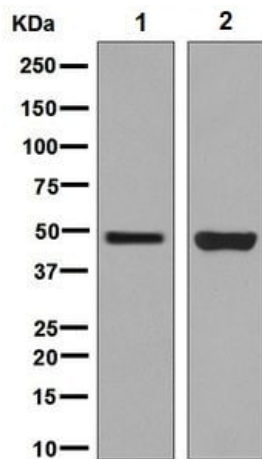
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HMGCS2 antibody [EPR8642] (ab137043)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse liver tissue labelling HMGCS2 with purified ab137043 at a dilution of 1/500. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. [ab97051](#), a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HMGCS2 antibody [EPR8642] (ab137043)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human liver tissue labelling HMGCS2 with purified ab137043 at a dilution of 1/500. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. [ab97051](#), a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.



Western blot - Anti-HMGCS2 antibody [EPR8642] (ab137043)

**All lanes** : Anti-HMGCS2 antibody [EPR8642] (ab137043) at 1/1000 dilution (unpurified)

**Lane 1** : Human fetal liver lysate

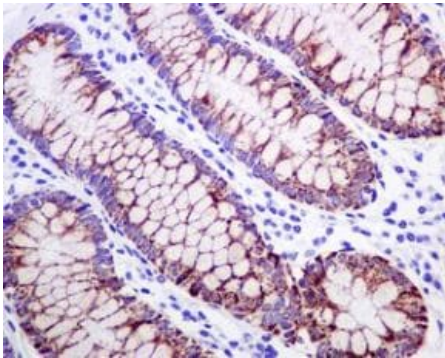
**Lane 2** : Caco 2 lysate

Lysates/proteins at 10 µg per lane.

**Secondary**

**All lanes** : HRP-conjugated goat anti-rabbit IgG at 1/2000 dilution

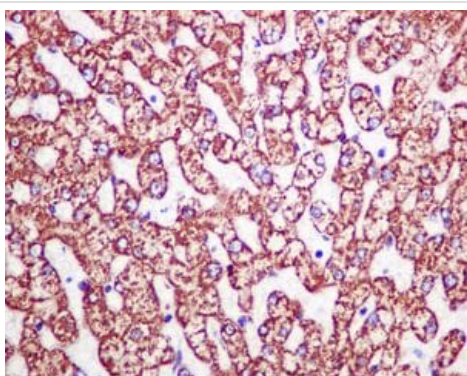
**Predicted band size:** 57 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HMGCS2 antibody [EPR8642] (ab137043)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human colon tissue labelling HMGCS2 with unpurified ab137043 at a dilution of 1/50.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-HMGCS2 antibody [EPR8642] (ab137043)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human liver tissue labelling HMGCS2 with unpurified ab137043 at a dilution of 1/50.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

#### 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-HMGCS2 antibody [EPR8642] (ab137043)

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

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