

# HMGCs2 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP6793B

## Product Information

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<b>Application</b>	IHC-P, FC, WB, E
<b>Primary Accession</b>	<a href="#">P54868</a>
<b>Reactivity</b>	Human, Rat, Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Clone Names</b>	RB19373
<b>Calculated MW</b>	56635
<b>Antigen Region</b>	478-508

## Additional Information

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<b>Gene ID</b>	3158
<b>Other Names</b>	Hydroxymethylglutaryl-CoA synthase, mitochondrial, HMG-CoA synthase, 3-hydroxy-3-methylglutaryl coenzyme A synthase, HMGCs2
<b>Target/Specificity</b>	This HMGCs2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 478-508 amino acids from the C-terminal region of human HMGCs2.
<b>Dilution</b>	IHC-P~~1:100~500 FC~~1:10~50 WB~~1:1000 E~~Use at an assay dependent concentration.
<b>Format</b>	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
<b>Precautions</b>	HMGCs2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	HMGCs2
<b>Function</b>	Catalyzes the first irreversible step in ketogenesis, condensing acetyl-CoA to acetoacetyl-CoA to form HMG-CoA, which is converted by HMG-CoA reductase (HMGCR) into mevalonate.

## Cellular Location

Mitochondrion {ECO:0000250 | UniProtKB:P22791}.

## Tissue Location

Expression in liver is 200-fold higher than in any other tissue. Low expression in colon, kidney, testis, and pancreas Very low expression in heart and skeletal muscle (PubMed:16940161, PubMed:21952825, PubMed:7893153). Not detected in brain (PubMed:21952825).

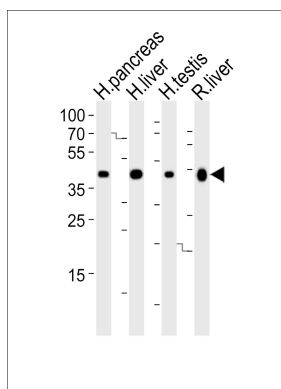
## Background

HMGCS2 belongs to the HMG-CoA synthase family. It is a mitochondrial enzyme that catalyzes the first reaction of ketogenesis, a metabolic pathway that provides lipid-derived energy for various organs during times of carbohydrate deprivation, such as fasting.

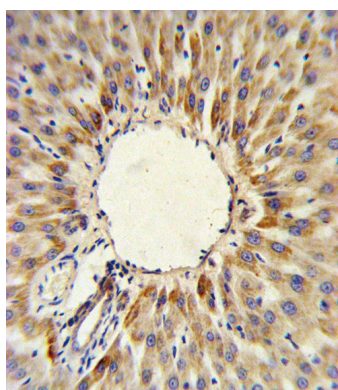
## References

Lu,Y., et.al., J. Lipid Res. 49 (12), 2582-2589 (2008)

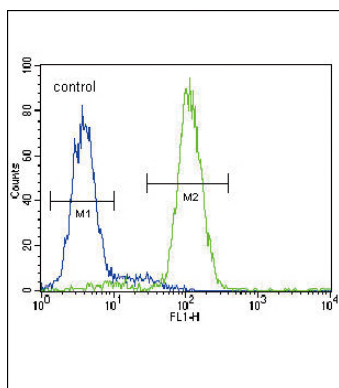
## Images



Western blot analysis of lysates from human pancreas, liver, testis and rat liver tissue lysate (from left to right), using HMGCS2 Antibody (C-term)(Cat. #AP6793b). AP6793b was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 35ug per lane.



HMGCS2 Antibody (C-term) (Cat. #AP6793b) IHC analysis in formalin fixed and paraffin embedded human hepatocarcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the HMGCS2 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



HMGCS2 Antibody (C-term) (Cat. #AP6793b) flow cytometric analysis of HepG2 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

## Citations

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- [Hepatocellular carcinoma redirects to ketolysis for progression under nutrition deprivation stress.](#)

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