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HMGCS2 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6793B

Product Information

Application	IHC-P, FC, WB, E
Primary Accession	P54868
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB19373
Calculated MW	56635
Antigen Region	478-508

Additional Information

Gene ID	3158
Other Names	Hydroxymethylglutaryl-CoA synthase, mitochondrial, HMG-CoA synthase, 3-hydroxy-3-methylglutaryl coenzyme A synthase, HMGCS2
Target/Specificity	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.
Dilution	IHC-P~~1:100~500 FC~~1:10~50 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	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.
Storage	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.
Precautions	HMGCS2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	HMGCS2
Function	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).

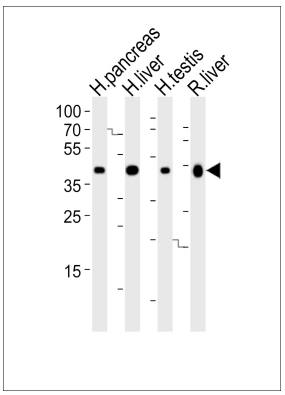
Background

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.

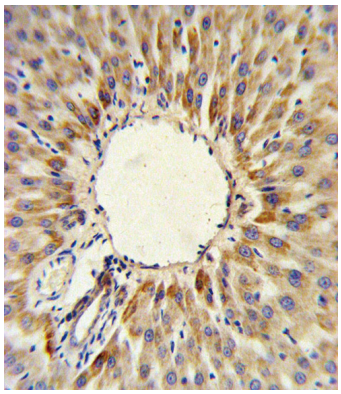
References

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

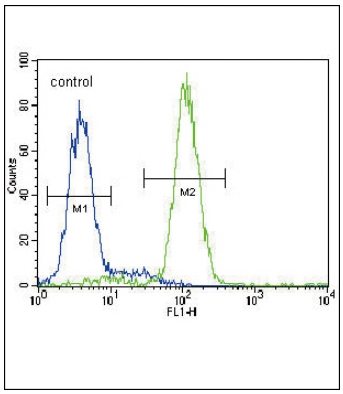
Images



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

- Hepatocellular carcinoma redirects to ketolysis for progression under nutrition deprivation stress.