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-20C
#40364**HMGCS2 (D8B5M) Rabbit mAb**
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Applications: W	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 50	Source/Isotype: Rabbit IgG	UniProt ID: #P54868	Entrez-Gene Id: 3158
Product Usage Information		Application Western Blotting		Dilution 1:1000		
Storage		Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.				
Specificity/Sensitivity		HMGCS2 (D8B5M) Rabbit mAb recognizes endogenous levels of total HMGCS2 protein. This antibody does not cross-react with HMGCS1 protein.				
Source / Purification		Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala45 of human HMGCS2 protein.				
Background		Mitochondrial 3-hydroxy-3-methylglutaryl-CoA synthase (HMGCS2) generates hydroxymethylglutaryl-CoA (HMG-CoA) from acetyl-CoA and acetoacetyl-CoA, a rate-limiting step in ketogenesis (1). Starvation or a high-fat and low-carbohydrate diet increases the levels of hepatic FGF21, which in turn up-regulates HMGCS2 expression (2). Furthermore, mTORC1 inhibition was shown to be required for the increase of HMGCS2 expression mediated by PPARα in response to fasting (3). In addition, studies on mice lacking HMGCS2 suggest that ketogenesis plays a role in the prevention of diet-induced fatty liver injury and hyperglycemia (4).				
Background References		1. Puchalska, P. and Crawford, P.A. (2017) <i>Cell Metab</i> 25, 262-284. 2. Badman, M.K. et al. (2007) <i>Cell Metab</i> 5, 426-37. 3. Sengupta, S. et al. (2010) <i>Nature</i> 468, 1100-4. 4. Cotter, D.G. et al. (2014) <i>J Clin Invest</i> 124, 5175-90.				

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key**W:** Western Blotting**Cross-Reactivity Key****H:** Human **M:** Mouse **R:** Rat**Trademarks and Patents**

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