Store at -20C

#20940

HMGCS2 (D3U1A) Rabbit mAb

Cell Signaling
T E C H N O L O G Y®

Orders:	877-616-CELL (2355)
	orders@cellsignal.com
Support:	877-678-TECH (8324)
Web:	info@cellsignal.com
	cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H M R	Endogenous	50	Rabbit IgG	#P54868	3158

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50

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 (D3U1A) 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 Pro478 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) *Cell Metab* 25, 262-284.
2. Badman, M.K. et al. (2007) *Cell Metab* 5, 426-37.
3. Sengupta, S. et al. (2010) *Nature* 468, 1100-4.
4. Cotter, D.G. et al. (2014) *J Clin Invest* 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 **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.

XP is a registered trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for

diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.