

PRODUCT INFORMATION



3-hydroxy-3-methylglutaryl-Coenzyme A (sodium salt)

Item No. 25394

Formal Name: (2R,3S,4R,5R)-5-(6-amino-9H-purin-9-yl)-2-((((((3R)-4-((3-((2-(4-carboxy-3-hydroxy-3-methylbutanoyl)thio)ethyl)amino)-3-oxopropyl)amino)-3-hydroxy-2,2-dimethyl-4-oxobutoxy)oxidophosphoryl)oxy)(hydroxy)phosphoryl)oxy)methyl)-4-hydroxytetrahydrofuran-3-yl phosphate, trisodium salt

Synonyms: DL-3-hydroxy-3-methylglutaryl-CoA, HMG-CoA, Hydroxymethylglutaryl-CoA

MF: C₂₇H₄₁N₇O₂₀P₃S • 3Na

FW: 977.6

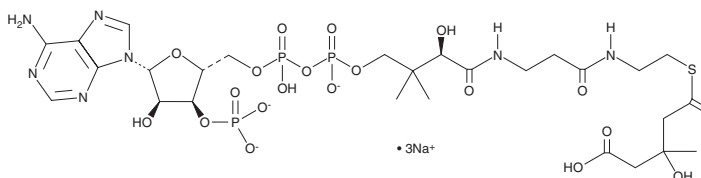
Purity: ≥95%

UV/Vis.: λ_{max}: 259 nm

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

3-hydroxy-3-methylglutaryl-Coenzyme A (HMG-CoA) (sodium salt) is supplied as a solid. A stock solution may be made by dissolving the HMG-CoA (sodium salt) in water. The solubility of HMG-CoA (sodium salt) in water is approximately 50 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

HMG-CoA is an intermediate in several metabolic pathways.¹⁻⁴ Conversion of HMG-CoA to mevalonate by HMG-CoA reductase is the rate-limiting first step in the cholesterol biosynthetic pathway.^{2,3} Alternatively, HMG-CoA can be cleaved into acetyl-CoA and the ketone body acetoacetate in mitochondria by HMG-CoA lyase.^{1,4} HMG-CoA is also an intermediate in the degradation of leucine.⁴

References

1. Laffel, L. Ketone bodies: A review of physiology, pathophysiology and application of monitoring to diabetes. *Diabetes Metab. Res. Rev.* **15**(6), 412-426 (1999).
2. Espenshade, P.J. and Hughes, A.L. Regulation of sterol synthesis in eukaryotes. *Annu. Rev. Genet.* **41**, 401-427 (2007).
3. Honda, A., Salen, G., Nguyen, L.B., *et al.* Regulation of early cholesterol biosynthesis in rat liver: Effects of sterols, bile acids, lovastatin, and BM 15.766 on 3-hydroxy-3-methylglutaryl coenzyme A synthase and acetoacetyl coenzyme A thiolase activities. *Hepatology* **27**(1), 154-159 (1998).
4. Berg, J.M., Tymoczko, J.L., and Stryer, L. Section 25.5 NAD⁺, FAD, and coenzyme A are formed from ATP. *Biochemistry*. 5th ed., W.H. Freeman, New York (2002).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/13/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM