

PRODUCT INFORMATION



Oleoyl-Coenzyme A (sodium salt)

Item No. 35384

Formal Name: coenzyme A, S-(9Z)-9-octadecenoate, monosodium salt

Synonyms: Oleoyl (*cis*-9-C18:1)-CoA, Oleoyl-CoA

MF: C₃₉H₆₈N₇O₁₇P₃S • Na

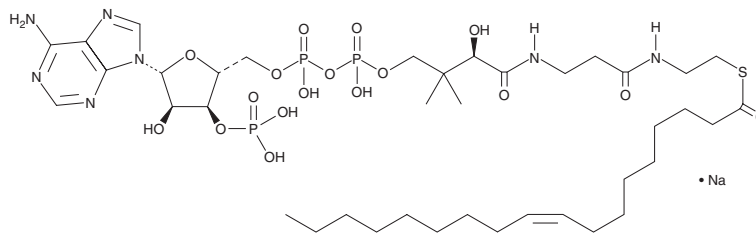
FW: 1,055.0

Purity: ≥90%

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

Oleoyl-coenzyme A (oleoyl-CoA) is supplied as a solid. A stock solution may be made by dissolving the oleoyl-CoA in water. The solubility of oleoyl-CoA in water is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Oleoyl-CoA is a thioester of oleic acid (Item No. 90260 | 24659) and CoA (Item Nos. 16147 | 21499 | 21722). It is a substrate for several acyl-CoA-dependent enzymes, including acyl-coenzyme A:cholesterol acyltransferase-1 (ACAT-1), ACAT-2, acyl-CoA dehydrogenase-9 (ACAD-9), membrane-bound O-acyltransferase 1 (MBOAT1), and MBOAT2.¹⁻³ Oleoyl-CoA binds the fatty acid metabolism regulator protein (FadR) promoter in *E. coli* ($K_i = 0.005 \mu\text{M}$).⁴ Oleoyl-CoA (1 μM) activates sulfonylurea receptor 1 (SUR1) linked to ATP-sensitive potassium channel $K_{ir}6.2$ in *Xenopus* oocytes.⁵

References

1. Seo, T., Oelkers, P.M., Giattina, M.R., *et al.* Differential modulation of ACAT1 and ACAT2 transcription and activity by long chain free fatty acids in cultured cells. *Biochemistry* **40**(15), 4756-4762 (2001).
2. Ensenauer, R., He, M., Willard, J.-M., *et al.* Human acyl-CoA dehydrogenase-9 plays a novel role in the mitochondrial β -oxidation of unsaturated fatty acids. *J. Biol. Chem.* **280**(37), 32309-32316 (2005).
3. Gijón, M.A., Riekhof, W.R., Zarini, S., *et al.* Lysophospholipid acyltransferases and arachidonate recycling in human neutrophils. *J. Biol. Chem.* **283**(44), 30235-30245 (2008).
4. DiRusso, C.C., Heimert, T.L., and Metzger, A.K. Characterization of FadR, a global transcriptional regulator of fatty acid metabolism in *Escherichia coli*. Interaction with the *fadB* promoter is prevented by long chain fatty acyl coenzyme A. *J. Biol. Chem.* **267**(12), 8685-8691 (1992).
5. Gribble, F.M., Proks, P., Corkey, B.E., *et al.* Mechanism of cloned ATP-sensitive potassium channel activation by oleoyl-CoA. *J. Biol. Chem.* **273**(41), 26383-26387 (1998).

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.

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