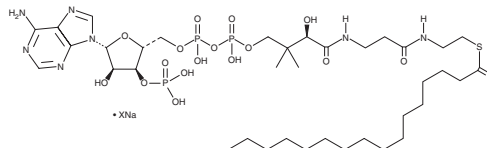


PRODUCT INFORMATION

Palmitoyl-Coenzyme A (sodium salt)

Item No. 27703

Formal Name: S-hexadecanoate, coenzyme A
Synonyms: Hexadecanoyl-CoA, Palmitoyl-CoA
MF: $C_{37}H_{66}N_7O_{17}P_3S \cdot XNa$
FW: 1,005.9
Purity: $\geq 95\%$
Supplied as: A solid
Storage: $-20^{\circ}C$
Stability: ≥ 4 years



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

Laboratory Procedures

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

Description

Palmitoyl-CoA is a derivative of CoA (Item Nos. 16147 | 21499) that contains the saturated fatty acid palmitic acid (Item Nos. 10006627 | 43561). It is a substrate for palmitoyltransferases during palmitoylation, a process that adds a palmitoyl group to proteins to anchor them to the membrane or target them to lipid rafts.¹ It is also a substrate in the *de novo* synthesis of sphingolipids.^{2,3} Palmitoyl-CoA binds to acyl-CoA-binding protein (ACBP; $K_d = 0.45$ pM) and undergoes β -oxidation in mitochondria.³

References

1. Guan, X. and Fierke, C.A. Understanding protein palmitoylation: Biological significance and enzymology. *Sci. China Chem.* **54**(12), 1888-1897 (2011).
2. Weiss, B. and Stoffel, W. Human and murine serine-palmitoyl-CoA transferase. Cloning, expression and characterization of the key enzyme in sphingolipid synthesis. *Eur. J. Biochem.* **249**(1), 239-247 (1997).
3. Lai, M.K.P., Chew, W.S., Torta, F., et al. Biological effects of naturally occurring sphingolipids, uncommon variants, and their analogs. *Neuromolecular Med.* **18**(3), 396-414 (2016).
4. Rasmussen, J.T., Faergeman, N.J., Kristiansen, K., et al. Acyl-CoA-binding protein (ACBP) can mediate intermembrane acyl-CoA transport and donate acyl-CoA for β -oxidation and glycerolipid synthesis. *Biochem. J.* **299**(Pt 1), 165-170 (1994).

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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