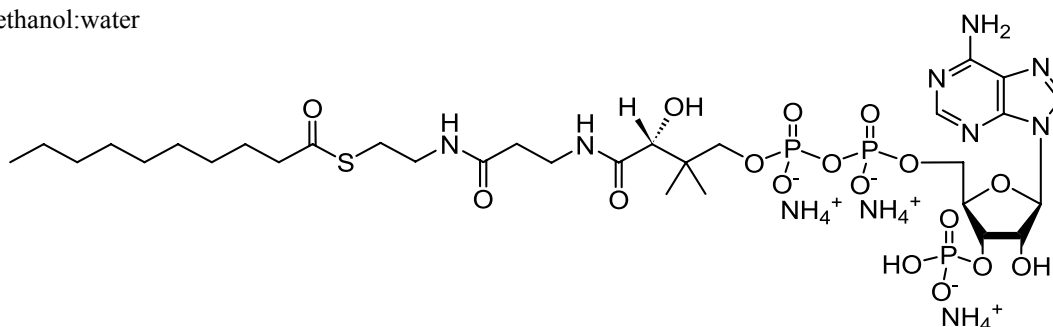


TECHNICAL DATA SHEET

Decanoyl Coenzyme A (ammonium salt)

Catalog Number	870710	Physical state	Powder
Purity	> 99%	Transition temp.	No data
CAS	799812-83-2	CMC	No data
Synonyms	10:0 Coenzyme A; C10 CoA	pK _a	No data
Molec. Formula	C ₃₁ H ₆₃ N ₁₀ O ₁₇ P ₃ S	TLC mobile phase	C:M:W*, 50:40:10, v/v Dissolve in: C:M:W*, 80:20:2, v/v
MW	972.331	Exact Mass	972.875
Percent composition	C 38.27% H 6.53% N 14.40% O 27.96% P 9.55% S 3.30%		
Stability	Store in <-20°C freezer for one year as a powder		
Solubility	Soluble in water, methanol:water, C:M:W* 80:20:2 to 65:25:4, v/v		
Web link	870710		

* chloroform:methanol:water



Description: Many fatty acids are activated to the acyl CoA's, critical for metabolism (Hamilton, 2007). Acyl coenzyme A's are the precursors of sphingolipids, the predominant stored fatty acids. Fatty acyl-coenzyme A's play a role in most fatty acid modification reactions (Leonhardt and Langerhans, 2004; Haynes *et al*, 2008), are a part of nuclear signaling (Schroeder *et al*, 2008), are involved in post-translational protein modification and in gene regulation (Haynes *et al*, 2008; Schroeder *et al*, 2008). Because of these diverse functions, fatty acyl CoA's have been implicated in obesity (Leonhardt and Langerhans, 2004; Schroeder *et al*, 2008), cardiovascular disease, diabetes mellitus, cancer (Schroeder *et al*, 2008) and Reye's syndrome (Kasuya *et al*, 2004). In the cell, where the oxidation reaction occurs may be different for medium chain fatty acids which oxidize faster than long chain fatty acids and may have implications for obesity (Leonhardt and Langhans, 2004).

Product use: A stock solution may be prepared by dissolving the fatty acyl CoA in distilled/deionized water or buffer that has been sparged with nitrogen to remove oxygen (heat and/or sonication may be necessary to dissolve medium chain fatty acyl CoA's). Fatty acyl CoA's are soluble in water to $\leq 50\text{mg/mL}$. The aqueous solution should be stored at 2-8°C and used within 1 day. Fatty acyl CoA's are not stable in aqueous solution and will degrade rapidly when stored in water. For long term storage, Avanti recommends that fatty acyl CoA's be stored as a powder at -20°C. The product should be stable in this form for at least 1 year.

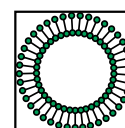
References:

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Related products: [AcylCoenzymeA](#)
[Sphingolipids](#)
[LIPID MAPS Mass spectrometry lipid standards](#)

MSDS: Available on Avanti's website for product number 870710

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