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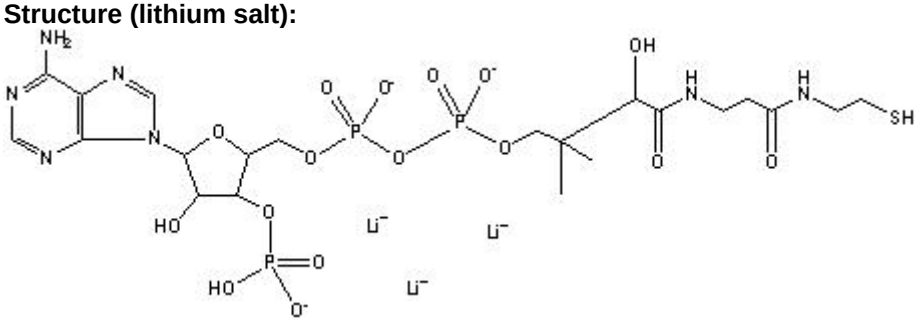
TECHNICAL INFORMATION

Catalog Number: 100493, 104809
Coenzyme A

Structure (lithium salt):



	Free acid, trihydrate	Trilithium salt, dihydrate
Molecular Formula:	$C_{21}H_{36}N_7O_{16}P_2S \cdot 3H_2O$	$C_{21}H_{33}Li_3N_7O_{16}P_3S \cdot 2H_2O$
Molecular Weight:	821.4	821.4
CAS #:	85-61-0	18439-24-2

Physical Description: White crystalline powder
Solubility:

Free acid: Soluble in water (50 mg/ml - clear, colorless to faint yellow solution)
Trilithium salt: Soluble in water (50 mg/ml - clear, colorless to faint yellow solution)

Description: An essential cofactor in enzymatic acetyl transfer reactions.[1]
The principal biologically active forms of pantothenic acid are coenzyme A (CoA) and acyl carrier protein (ACP). In CoA, the business center of the molecule is the pantothenic acid metabolite 4'-phosphopantetheine. Coenzyme A is comprised of 4'-phosphopantetheine linked by an anhydride bond to the nucloetide adenosine 5'-monophosphate. 4'-Phosphopantetheine itself is comprised of pantothenic acid linked at one end, via an amide bond, to beta-mercaptoethylamine, derived from L-cysteine, and at the other end to a phosphate group. The sulfhydryl group of 4'-phosphopantetheine, which is the business end of the coenzyme, forms thioesters with acyl groups producing acyl-CoA derivatives, including acetyl-CoA.[2]
Coenzyme A may facilitate removal of lipid peroxides by increasing mobilization of fatty acids, and promote repair of plasma membranes by activating phospholipid synthesis.[2]
Availability:

Catalog Number	Description	Size
100493	Coenzyme A, trilithium salt, dihydrate	10 mg 25 mg 50 mg 100 mg 250 mg 500 mg 1 g
104809	Coenzyme A, free acid, trihydrate	10 mg 50 mg 100 mg 500 mg

References:

– *Merck Index*, **12th Ed.**, No. 2531.
– www.pdrhealth.com