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Produktinformation

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- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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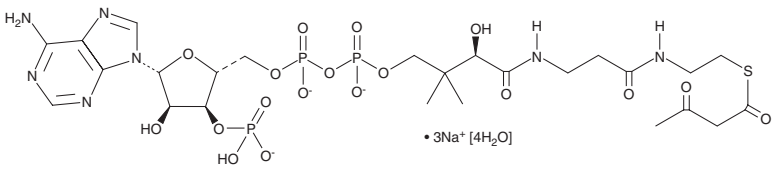
PRODUCT INFORMATION

Acetoacetyl-Coenzyme A (sodium salt hydrate)

Item No. 21219

Formal Name:	S-(3-oxobutanoate) coenzyme A, trisodium salt, tetrahydrate
Synonym:	Acetoacetyl-CoA
MF:	$C_{25}H_{37}N_7O_{18}P_3S \bullet 3Na\ [4H_2O]$
FW:	989.6
UV/Vis.:	λ_{max}: 257 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥2 years



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

Laboratory Procedures

Acetoacetyl-coenzyme A (acetoacetyl-CoA) is supplied as a solid. Aqueous solutions of acetoacetyl-CoA can be prepared by directly dissolving the solid in aqueous buffers. The solubility of acetoacetyl-CoA in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Acetoacetyl-CoA is a precursor to HMG-CoA in the isoprenoid pathway.[1,2] It is reversibly converted to acetyl-CoA by acetoacetyl-CoA thiolase in the mitochondria. Acetoacetyl-CoA thiolase (T2) deficiency results in a build-up of ketone bodies leading to intermittent ketoacidosis.[3,4] Acetoacetyl-CoA is also an intermediate in the microbial biosynthesis of polyhydroxybutyrate.[5]

References

1. Lynen, F., and Ochoa, S. Enzymes of fatty acid metabolism. *Biochem. Biophys. Acta.* **12(1-2)**, 299-314 (1953).
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3. Daum, R.S., Scriver, C.R., Mamer, O.A., *et al.* An inherited disorder of isoleucine catabolism causing accumulation of α-methylacetoacetate and α-methyl-β-hydroxybutyrate, and intermittent metabolic acidosis. *Pediatr. Res.* **7(3)**, 149-160 (1973).
4. Fukao, T., Scriver, C.R., and Kondo, N. The clinical phenotype and outcome of mitochondrial acetoacetyl-CoA thiolase deficiency (β-ketothiolase or T2 deficiency) in 26 enzymatically proved and mutation-defined patients. *Mol. Genet. Metab.* **72(2)**, 109-114 (2001).
5 Jacquel, N., Lo, C.-W., Wei, Y.-H., et al. Isolation and purification of bacterial poly(3-hydroxyalkanoates) *Biochem. Eng. J.* **39(1)**, 15-27 (2008).

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