

Product Data Sheet

Product Name: Succinyl-Coenzyme A (sodium salt)

Cat. No.: GC44961

Chemical Properties

Cas. No. 108347-97-3

Chemical Name S-(hydrogen butanedioate), coenzyme A, sodium salt

SMILES O[C@H]1[C@H](N2C=NC3=C2N=CN=C3N)O[C@H](COP(OP(OCC(C)(C)[C@@H](O)C(NCCC(NCCSC(CCC(O)=O)=O)=O)=O)(O)=O)(O)=O)[C@H]1OP(O)(O)=O.[Na]

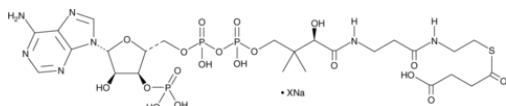
Formula $C_{25}H_{40}N_7O_{19}P_3S \cdot XNa$ M.Wt 867.6

Solubility 10mg/mL in PBS, pH 7.2 Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

Succinyl-coenzyme A (succinyl-CoA) is an intermediate in the citric acid cycle.[1] It is converted to succinate, which is a metabolic intermediate with various biological activities. Succinyl-CoA is required, with glycine, to form δ-aminolevulinic acid in the first step of porphyrin and heme synthesis. [2] Succinyl-CoA deficiency, caused by vitamin B12 deficiency can disrupt heme and energy production, leading to neuromotor dysfunction.[3]

Reference:

- [1]. Meister, A. ACYL phosphates as enzyme-bound intermediates in the biosynthesis of glutamine, glutathione, succinyl, coenzyme A, and cabamyl phosphate. Trans. N. Y. Acad. Sci. 30(8), 1157-1180 (1968).
- [2]. Bonkovsky, H.L., Guo, J.-T., Hou, W., et al. Porphyrin and heme metabolism and the porphyrias. Compr Physiol 3(1), 365-401 (2013).

Caution: Product has not been fully validated for medical applications. For research use only.

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[3]. Bicakci, Z. Growth retardation, general hypotonia, and loss of acquired neuromotor skills in the infants of mothers with cobalamin deficiency and the possible role of succinyl-CoA and glycine in the pathogenesis. *Medicine (Baltimore)* 94(9), e584 (2015).

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