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ProductInformation

Acyl-coenzyme A Synthetase
from *Pseudomonas sp.*

Product Number **A 2777**
Storage Temperature -20 °C

Product Description

CAS Number: 9013-18-7
Enzyme Commission Number (E.C.): 6.2.1.3
Molecular Weight: Approximately 600 kDa

This enzyme catalyzes the formation of fatty acyl-CoA. A typical reaction scheme is:

ATP + a long-chain carboxylic acid + CoA = AMP + diphosphate + an acyl-CoA

This enzyme is specific for long chain fatty acids, specifically for fatty acids from C6 to C18.[1] It is inhibited by heavy metal ions and ionic detergents.

This product can be used for the enzymatic determination of free fatty acids by coupling with acyl-CoA oxidase or with myokinase, pyruvate kinase, and lactate dehydrogenase.[2,3]

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Storage/Stability

The enzyme is stable at least four months when stored frozen in aliquots at -20 °C in 10 mM potassium phosphate buffer, pH 8.0, containing 5 mM 2-mercaptoethanol and 50% glycerol.[4]

References

1. Shimizu, S., et al., Enzymatic determination of serum-free fatty acids: a colorimetric method. Anal. Biochem., **107(1)**, 193-198 (1980).
2. Shimizu, S. et al., Enzymatic determination of serum-free fatty acids: a colorimetric method. Anal. Biochem., **107(1)**, 193-198 (1980).
3. Okabe, H. et al., Enzymic determination of free fatty acids in serum. Clin. Chem., **26(11)**, 1540-1543 (1980).
4. Shimizu, S., et al., Enzymatic microdetermination of serum free fatty acids. Anal. Biochem. **98(2)**, 341-345 (1979).

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