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Product Information

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).

MWM/NSB 11/02

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