Creative Enzymes®

# Acyl-CoA synthetase from Microorganism

*Cat. No. NATE-1712*

*Lot. No.* (See product label)

## Introduction

***Description*** Acetylcoenzyme A synthetase (ACS, EC 6.2.1.3)catalyzes the formation of acetyl coenzyme A with free fatty acids and coenzyme A. The ACS provided by our company is gene recombinant protein. It is of high purity and good activity.

***Synonyms*** EC 6.2.1.3; ACS; acyl-CoA synthetase; fatty acid thiokinase (long chain); acyl-activating enzyme; palmitoyl-CoA synthase; lignoceroyl-CoA synthase; arachidonyl-CoA synthetase; acyl coenzyme A synthetase; acyl-CoA ligase; palmitoyl coenzyme A synthetase; thiokinase; palmitoyl-CoA ligase; acyl-coenzyme A ligase; fatty acid CoA ligase; long-chain fatty acyl coenzyme A synthetase; oleoyl-CoA synthetase; stearoyl-CoA synthetase; long chain fatty acyl-CoA synthetase; long-chain acyl CoA synthetase; fatty acid elongase; LCFA synthetase; pristanoyl-CoA synthetase; ACS3; long-chain acyl-CoA synthetase I; long-chain acyl-CoA synthetase II; fatty acyl-coenzyme A synthetase; long-chain acyl-coenzyme A synthetase; FAA1

## Product Information

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| ***Source*** | Microorganism |
| ***Form*** | White powder, lyophilized |
| ***EC Number*** | EC 6.2.1.3 |
| ***CAS No.*** | 9013-18-7 |
| ***Molecular Weight*** | 63 kDa (SDS-PAGE) |
| ***Activity*** | >20U/mg protein |
| ***Isoelectric point*** | 7.5 |
| ***pH Stability*** | 6.5~7.5 (25°C, 18hr) |
| ***Optimum pH*** | 7.5 |
| ***Thermal stability*** | < 45°C (pH 7.5, 10min) |
| ***Optimum temperature*** | 37°C |
| ***Michaelis Constant*** | 1.4×10^-5 M(oleic acid) 1.9×10^-4 M(CoA) 1.9×10^-5 M(ATP) |
| ***Inhibitors*** | Ag+, Hg2+, Zn2+, Cu2+, Fe3+ |
| ***Unit Definition*** | One unit will convert one micromole of fatty acid to acyl-CoAper min at pH 7.5 at 37°C. |
| ***Notes*** | INTENDED FOR RESEARCH USE ONLY, NOT FOR USE IN HUMAN, THERAPEUTIC OR DIAGNOSTIC APPLICATIONS. |

## *Storage and Shipping Information*

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| ***Storage*** | Store at -20°C. |