

Native *Pseudomonas* sp. Acyl-coenzyme A Synthetase

Cat. No. NATE-0028

Lot. No. (See product label)

Introduction

Description The Long chain fatty acyl-CoA synthetase enzyme is a member of the ligase family that activates the breakdown of complex fatty acids. Long chain fatty acyl-CoA synthetase plays a crucial role in intermediary metabolism by catalyzing the formation of fatty acyl-CoA by a two-step process proceeding through an adenylated intermediate. It is an enzyme present in all organisms from bacteria to Humans. It catalyzes the pre-step reaction for β -oxidation of fatty acids or can be incorporated in phospholipids. Acyl coenzyme A synthetase proteins are involved in regulating and facilitating long-chain fatty acid transport in mammalian cells.

Applications Acyl-coenzyme A Synthetase may be used to study fatty acid metabolism and lipid metabolism. It has been used to study its interaction with fatty acid transport proteins, which has been found to be involved in the efficient cellular uptake of long-chain fatty acids in adipocyte.

Synonyms 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; EC 6.2.1.3; 9013-18-7

Product Information

Source *Pseudomonas* sp.

EC Number EC 6.2.1.3

CAS No. 9013-18-7

Activity > 2 units/mg protein

Unit Definition One unit will form 1.0 μ mole of AMP and oleoyl coenzyme A from ATP and oleate at pH 8.1 at 25°C in the presence of Coenzyme A.

Storage and Shipping Information

Storage -20°C