Creative Enzymes®

acyl-homoserine-lactone synthase

Cat. No. EXWM-2126

Lot. No. (See product label)

Introduction

Description

Acyl-homoserine lactones (AHLs) are produced by a number of bacterial species and are used by them to regulate the expression of virulence genes in a process known as quorum-sensing. Each bacterial cell has a basal level of AHL and, once the population density reaches a critical level, it triggers AHL-signalling which, in turn, initiates the expression of particular virulence genes. N-(3-Oxohexanoyl)-[acyl-carrier protein] and hexanoyl-[acyl-carrier protein] are the best substrates. The fatty-acyl substrate is derived from fatty-acid biosynthesis through acyl-[acyl-carrier protein] rather than from fatty-acid degradation through acyl-CoA. S-Adenosyl-L-methionine cannot be replaced by methionine, S-adenosylhomocysteine, homoserine or homoserine lactone.

Synonyms

acyl-homoserine lactone synthase; acyl homoserine lactone synthase; acyl-homoserinelactone synthase; acylhomoserine lactone synthase; AHL synthase; AHS; AHSL synthase; AhyI; AinS; AinS protein; autoinducer synthase; autoinducer synthesis protein rhlI; EsaI; ExpISCC1; ExpISCC3065; LasI; LasR; LuxI; LuxI protein; LuxM; N-acyl homoserine lactone synthase; RhlI; YspI acyl-[acyl carrier protein]:S-adenosyl-L-methionine acyltranserase (lactone-forming, methylthioadenosine-releasing)

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 2.3.1.184

CAS No.

176023-66-8

Reaction

an acyl-[acyl-carrier protein] + S-adenosyl-L-methionine =an [acyl-carrier protein] + S-methyl-5'-thioadenosine + an N-acyl-L-homoserine lactone

Notes

This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.

Storage and Shipping Information

Storage

Store it at +4 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.