

Product Name: *N*-(3-Oxododecanoyl)-L-homoserine lactone

Catalog No.: 6548

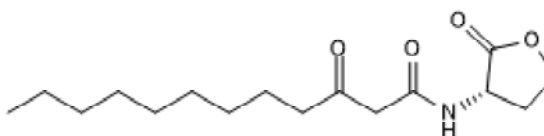
Batch No.: 1

CAS Number: 168982-69-2

IUPAC Name: 3-Oxo-*N*-[(3*S*)-tetrahydro-2-oxo-3-furanyl]dodecanamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₆H₂₇NO₄
Batch Molecular Weight: 297.39
Physical Appearance: White solid
Solubility: DMSO to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = +10.1 (Concentration = 0.36, Solvent = Chloroform)
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	64.62	9.15	4.71
Found	64.6	8.79	4.67

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Bacterial quorum sensing signal molecule. Inhibits lymphocyte proliferation and TNF- α and IL-12 production by LPS-stimulated macrophages. Inhibits or promotes antibody production at high and low concentrations, respectively, in keyhole limpet hemocyanin (KLH)-stimulated spleen cells. Immunomodulator.

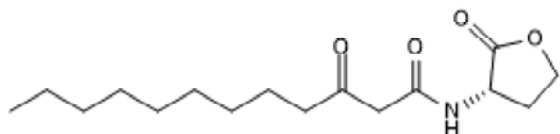
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Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Telford *et al* (1998) The *Pseudomonas aeruginosa* quorum-sensing signal molecule *N*-(3-oxododecanoyl)-L-homoserine lactone has immunomodulatory activity. *Infect.Immun.* **66** 36. PMID: 9423836.

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