

## N-Oleoyl-L-Serine

## Chemical Properties

CAS No. : 107743-37-3

Formula: C<sub>21</sub>H<sub>39</sub>NO<sub>4</sub>

Molecular Weight: 369.54

Storage:

Store at low temperature, Keep away from direct sunlight

Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	N-Oleoyl-L-Serine (N-Oleoylserine) is an endogenous long-chain fatty acid amide that is a lipid modulator of bone remodeling and stimulates osteoclast apoptosis which can be used to study osteoporosis. N-Oleoyl-L-Serine showed high activity in an osteoblast proliferation assay. N-Oleoyl-L-Serine promotes osteoclast apoptosis by inhibiting Erk1/2 phosphorylation and expression of nuclear $\kappa$ B ligand (RANKL) receptor activator in bone marrow stromal cells and osteoblasts, which attenuates osteoclast populations.
Targets(IC50)	Apoptosis

## Solubility Information

Solubility	Ethanol:PBS (pH 7.2) (1:1): 0.5 mg/mL (1.35 mM), Sonication is recommended. DMF: 4 mg/mL (10.82 mM), Sonication is recommended. DMSO: 137.5 mg/mL (372.08 mM), Sonication is recommended. Ethanol: 4 mg/mL (10.82 mM), Sonication is recommended. Ethanol:PBS pH 7.2 (1:1): < 1 mg/mL (insoluble or slightly soluble) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	2.7061 mL	13.5303 mL	27.0607 mL
5 mM	0.5412 mL	2.7061 mL	5.4121 mL
10 mM	0.2706 mL	1.353 mL	2.7061 mL
50 mM	0.0541 mL	0.2706 mL	0.5412 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Reem Smoum, et al. Oleoyl serine, an endogenous N-acyl amide, modulates bone remodeling and mass. Proc Natl Acad Sci U S A. 2010 Oct 12;107(41):17710-5.

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