

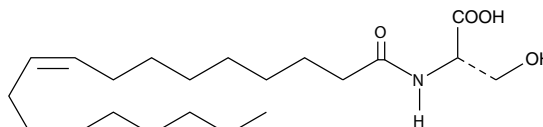
# Product Information



## N-Oleoyl-L-Serine

Item No. 13058

**CAS Registry No.:** 107743-37-3  
**Formal Name:** (S)-3-hydroxy-2-oleamidopropanoic acid  
**MF:** C<sub>21</sub>H<sub>39</sub>NO<sub>4</sub>  
**FW:** 369.5  
**Purity:** ≥98%  
**Stability:** ≥1 year at -20°C  
**Supplied as:** A solution in ethanol



### Laboratory Procedures

For long term storage, we suggest that N-oleoyl-L-serine be stored as supplied at -20°C. It should be stable for at least one year.

To change the solvent, simply evaporate the N-oleoyl-L-serine under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of N-oleoyl-L-serine in these solvents is approximately 20 mg/ml.

N-Oleoyl-L-serine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of N-oleoyl-L-serine should be diluted with the aqueous buffer of choice. N-oleoyl-L-serine has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Bone mass and shape is continuously remodeled by the concerted and balanced action of osteoblasts (bone forming cells) and osteoclasts (bone-resorbing cells). The endocannabinoid system plays an essential role in the maintenance of normal bone mass *via* signaling through the CB<sub>2</sub> receptor.<sup>1</sup> N-Oleoyl-L-serine is an endogenous lipid that has been reported to stimulate bone formation and to inhibit bone resorption.<sup>2</sup>

### References

1. Bab, I. and Zimmer, A. Cannabinoid receptors and the regulation of bone mass. *Br. J. Pharmacol.* **153**, 182-188 (2008).
2. Mechoulam, R. and Bab, I. An endogenous lipid with novel bone anabolic activity *in vivo*. 18<sup>th</sup> International Cannabinoid Research Society (2008).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/13058](http://www.caymanchem.com/catalog/13058)

**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY. NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

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### Cayman Chemical

#### Mailing address

1180 E. Ellsworth Road  
Ann Arbor, MI  
48108 USA

#### Phone

(800) 364-9897  
(734) 971-3335

#### Fax

(734) 971-3640

#### E-Mail

custserv@caymanchem.com

#### Web

[www.caymanchem.com](http://www.caymanchem.com)