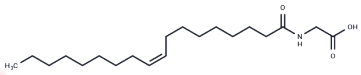
# Data Sheet (Cat.No.T13803)

TargetMol

## N-Oleoyl glycine

### Chemical Properties



CAS No. : 2601-90-3

Formula: C20H37NO3

Molecular Weight: 339.51

Storage: Keep away from moisture,Store at low temperature
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 glycine, a lipoamino acid, was able to promote 3T3-L1 adipogenesis through the activation of CB1 receptor and the enhancement of insulin-mediated Akt signaling pathway. |
| Targets(IC50) | Cannabinoid Receptor,Akt,Endogenous Metabolite,PPAR |
| In vitro | N-Oleoyl glycine stimulated lipid accumulation and significantly increased adipogenic genes (PPARγ and aP2), in a dose- and time-dependent manner.?Additionally, N-Oleoyl glycine markedly increased the mRNA expression of CB1 receptor and the inhibition of CB1R by its antagonist SR141716 abolished the promotive effects of N-Oleoyl glycine on lipid accumulation and the protein expression of PPARγ and aP2.?Furthermore, N-Oleoyl glycine increased the ratio of p-Akt/Akt and p-FoxO1/FoxO1, which could be reversed by SR141716.?Moreover, N-Oleoyl glycine-induced enhancement of adipogenesis, activation of insulin-mediated Akt signaling pathway and inactivation of FoxO1 were effectively blocked by Wortmannin, a specific PI3K/Akt inhibitor, indicating the essential role of Akt signaling pathway in the process of N-Oleoyl glycine-stimulated 3T3-L1 adipogenesis[1]. |

### Solubility Information

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|---|---|
| Solubility | DMSO: 80 mg/mL (235.63 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+90% Corn Oil: 3.3 mg/mL (9.72 mM),Sonication is recommended.<br>*Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.* |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 2.9454 mL | 14.7271 mL | 29.4542 mL |
| 5 mM | 0.5891 mL | 2.9454 mL | 5.8908 mL |
| 10 mM | 0.2945 mL | 1.4727 mL | 2.9454 mL |
| 50 mM | 0.0589 mL | 0.2945 mL | 0.5891 mL |

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

Wang S, et al. N-Oleoyl glycine, a lipoamino acid, stimulates adipogenesis associated with activation of CB1 receptor and Akt signaling pathway in 3T3-L1 adipocyte. Biochem Biophys Res Commun. 2015 Oct 23;466(3):438-43.