

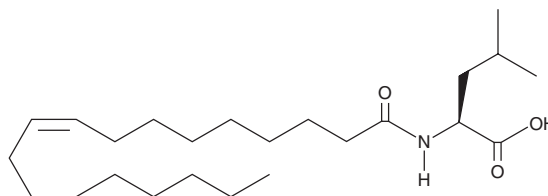
# PRODUCT INFORMATION



## N-Oleoyl Leucine

Item No. 20064

CAS Registry No.: 136560-76-4  
Formal Name: N-[(9Z)-1-oxo-9-octadecen-1-yl]-L-leucine  
MF:  $C_{24}H_{45}NO_3$   
FW: 395.6  
Purity:  $\geq 98\%$   
UV/Vis.:  $\lambda_{max}$ : 272 nm  
Supplied as: A solution in ethanol  
Storage:  $-20^{\circ}C$   
Stability:  $\geq 2$  years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

N-Oleoyl leucine is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of N-oleoyl leucine in DMF is approximately 10 mg/ml and approximately 12 mg/ml in DMSO.

N-Oleoyl leucine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of N-oleoyl leucine should be diluted with the aqueous buffer of choice. N-Oleoyl leucine has a solubility of approximately 200  $\mu\text{g/ml}$  in a 1:4 solution of ethanol:PBS (pH 7.2) using this method.

### Description

N-Oleoyl leucine is an N-acyl amide generated by PM20D1 that uncouples mitochondrial respiration independent of uncoupling protein 1 (UCP1) *in vitro*.<sup>1</sup> N-Oleoyl leucine (25 mg/kg, i.p.) decreases body weight and food intake, preferentially decreasing fat mass in a diet-induced obesity mouse model. It improves glucose homeostasis in a fasting glucose tolerance test and increases  $\text{VO}_2$  while slightly decreasing overall locomotor activity.

### Reference

1. Long, J.Z., Svensson, K.J., Bateman, L.A., *et al.* The secreted enzyme PM20D1 regulates lipidated amino acid uncouplers of mitochondria. *Cell* **166**(2), 1-12 (2016).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 02/02/2024

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897  
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM