

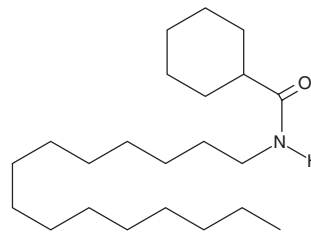
PRODUCT INFORMATION



N-Cyclohexanecarbonylpentadecylamine

Item No. 10007739

CAS Registry No.: 702638-84-4
Formal Name: N-pentadecyl-cyclohexanecarboxamide
MF: $C_{22}H_{43}NO$
FW: 337.6
Purity: $\geq 98\%$
Supplied as: A crystalline solid
Storage: $-20^{\circ}C$
Stability: ≥ 4 years



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

Laboratory Procedures

N-Cyclohexanecarbonylpentadecylamine is supplied as a crystalline solid. A stock solution may be made by dissolving the N-cyclohexanecarbonylpentadecylamine in the solvent of choice, which should be purged with an inert gas. N-Cyclohexanecarbonylpentadecylamine is soluble in the organic solvent ethanol at a concentration of approximately 2 mg/ml.

Description

Numerous analogs of fatty acyl ethanolamides potentiate the intrinsic biological activity of endocannabinoids.¹ This potentiation is ascribed either to inhibition of AEA reuptake into neurons, or inhibition of fatty acid amide hydrolase (FAAH) within the neurons.² However, Ueda, *et al.*, have recently cloned another amidase, the acidic palmitoyl ethanolamidase (PEAase), that promotes the hydrolysis of PEA.³ N-cyclohexanecarbonylpentadecylamine is a selective inhibitor of acidic PEAase, inhibiting the enzyme with an IC_{50} of 4.5 μM , while failing to inhibit FAAH even at 100 μM .⁴

References

1. Khanolkar, A.D. and Makriyannis, A. Structure-activity relationships of anandamide, an endogenous cannabinoid ligand. *Life Sci.* **65**, 607-616 (1999).
2. Deutsch, D.G., Glaser, S.T., Howell, J.M., *et al.* The cellular uptake of anandamide is coupled to its breakdown by fatty-acid amide hydrolase. *J. Biol. Chem.* **276(10)**, 6967-6973 (2001).
3. Ueda, N., Yamanaka, K., and Yamamoto, S. Purification and characterization of an acid amidase selective for N-palmitoylethanolamine, a putative endogenous anti-inflammatory substance. *J. Biol. Chem.* **276(38)**, 35552-35557 (2001).
4. Tsuboi, K., Hilligsmann, C., Vandevoorde, S., *et al.* N-cyclohexanecarbonylpentadecylamine: A selective inhibitor of the acid amidase hydrolysing N-acylethanolamines, as a tool to distinguish acid amidase from fatty acid amide hydrolase. *Biochem J.* **379**, 99-106 (2004).

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, 04/29/2024

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