PRODUCT INFORMATION



N-Benzyl Linoleamide

Item No. 33358

18286-71-0		
(9Z,12Z)-N-(phenylmethyl)-9,12-		
octadecadienamide		0
C ₂₅ H ₃₉ NO	=	\downarrow \land \land
369.6		N'
≥95%	$\setminus - \land \land$	H []
A solid		
-20°C		
≥4 years		
	18286-71-0 (9Z,12Z)-N-(phenylmethyl)-9,12- octadecadienamide $C_{25}H_{39}NO$ 369.6 ≥95% A solid -20°C ≥4 years	18286-71-0 (9Z,12Z)-N-(phenylmethyl)-9,12- octadecadienamide $C_{25}H_{39}NO$ $369.6 \\ \ge 95\%$ A solid -20°C ≥ 4 years

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

Laboratory Procedures

N-Benzyl linoleamide is supplied as a solid. A stock solution may be made by dissolving the N-benzyl linoleamide in the solvent of choice, which should be purged with an inert gas. N-Benzyl linoleamide is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of N-benzyl linoleamide in these solvents is approximately 30 mg/ml.

Description

N-Benzyl linoleamide is an inhibitor of soluble epoxide hydrolase (sEH; IC50s = 0.155, 0.041, and 0.044 μ M for the human, rat, and mouse enzymes, respectively).¹ It is selective for sEH over fatty acid amide hydrolase (FAAH; IC₅₀ = 10.8 μ M for the human enzyme). N-Benzyl linoleamide also inhibits the production of NF- κ B (IC₅₀ = 8.80 μ M) and activates nuclear factor erythroid 2-related factor 2 (Nrf2; EC₅₀ = 35.24 μ M in a transactivation assay) in Neuro2a murine neuroblastoma cells.² It increases the paw withdrawal threshold in a mouse model of LPS-induced inflammatory pain when administered at a dose of 100 mg/kg.¹

References

- 1. Singh, N., Barnych, B., Morisseau, C., et al. N-Benzyl-linoleamide, a constituent of Lepidium meyenii (maca), is an orally bioavailable soluble epoxide hydrolase inhibitor that alleviates inflammatory pain. J. Nat. Prod. 83(12), 3689-3697 (2020).
- 2. Ticona, L.A., Pérez, V.T., Serban, A.M., et al. Design, synthesis and pharmacological evaluation of N-benzyl linoleamide analogues from Tropaeolum tuberosum as NF-κB inhibitors and Nrf2 activators. ChemistrySelect 5(38), 11825-11836 (2020).

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

SAFFTY 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

uyer 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, 11/14/2022

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