

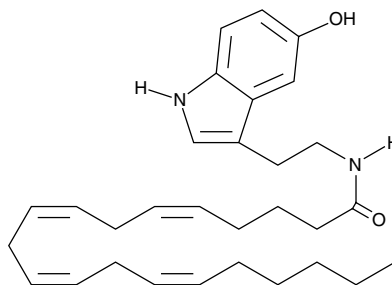
Product Information



Arachidonoyl Serotonin

Item No. 70665

CAS Registry No.: 187947-37-1
Formal Name: N-[2-(5-hydroxy-1H-indol-3-yl)ethyl]-5Z,8Z,11Z,14Z-eicosatetraenamide
Synonym: AA-5HT
MF: C₃₀H₄₂N₂O₂
FW: 462.7
Purity: ≥98%
Stability: ≥1 year at -20°C
Supplied as: A solution in methyl acetate
UV/Vis.: λ_{max}: 223, 278 nm



Laboratory Procedures

For long term storage, we suggest that arachidonoyl serotonin (AA-5HT) be stored as supplied at -20°C. It should be stable for at least one year.

AA-5HT is supplied as a solution in methyl acetate. To change the solvent, simply evaporate the methyl acetate under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO, ethanol, and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of AA-5HT in these solvents is approximately 15 mg/ml in ethanol and 30 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of AA-5HT is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of AA-5HT in PBS (pH 7.2) is approximately 290 µg/ml. We do not recommend storing the aqueous solution for more than one day.

AA-5HT is an inhibitor of fatty acid amide hydrolase (FAAH), the enzyme responsible for inactivation of anandamide and other endogenous cannabinoids. AA-5HT inhibits the FAAH activity isolated from mouse neuroblastoma cells with an IC₅₀ value of 12 µM. Both the K_m and the V_{max} of the enzyme are affected, indicating the AA-5HT is a very tight binding, competitive inhibitor of FAAH. AA-5HT does not inhibit cPLA₂ and is essentially devoid of cannabimimetic activity.¹ Repeated systematic administration of AA-5HT increased endogenous AEA and 2-AG levels, without increases in serotonin levels, proving this compound's efficacy and metabolic stability in the rat.²

References

1. Bisogno, T., Melck, D., De Petrocellis, L., *et al.* Arachidonoylserotonin and other novel inhibitors of fatty acid amide hydrolase. *Biochem. Biophys. Res. Commun.* **248**, 515-522 (1998).
2. On request

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/70665

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

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

MATERIAL 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 Material Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will **meet our specifications at the time of delivery.**

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a **refund** of the purchase price, or at Cayman's option, the **replacement**, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

For further details, please refer to our **Warranty and Limitation of Remedy** located on our website and in our catalog.

Copyright Cayman Chemical Company, 12/02/2011