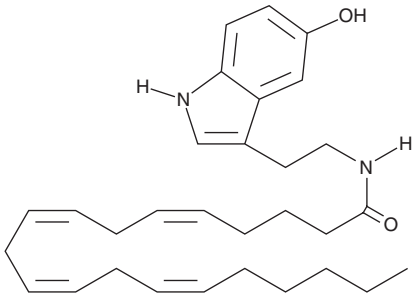
PRODUCT INFORMATION

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:	$C_{30}H_{42}N_2O_2$
FW:	462.7
Purity:	≥98%
UV/Vis.:	λ_{max}: 223, 278 nm
Supplied as:	A solution in methyl acetate
Storage:	-80°C
Stability:	≥2 years



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

Laboratory Procedures

Arachidonoyl serotonin 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 ethanol, DMSO, and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of arachidonoyl serotonin in ethanol and DMF is approximately 30 mg/ml and approximately 15 mg/ml in DMSO.

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 arachidonoyl serotonin is needed, it can be prepared by evaporating the methyl acetate and directly dissolving the neat oil in aqueous buffers. The solubility of arachidonoyl serotonin in PBS, pH 7.2, is approximately 290 µg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Arachidonoyl serotonin is an inhibitor of fatty acid amide hydrolase (FAAH), the enzyme responsible for inactivation of anandamide and other endogenous cannabinoids. It inhibits the FAAH activity isolated from mouse neuroblastoma cells with an IC_{50} value of 12 µM. Both the K_m and the V_{max} of the enzyme are affected, indicating the Arachidonoyl serotonin is a very tight binding, competitive inhibitor of FAAH. Arachidonoyl serotonin does not inhibit $cPLA_2$ and is essentially devoid of cannabimimetic activity.[1]

Reference

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(3)**, 515-522 (1998).

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