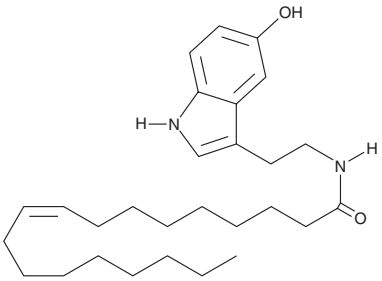
PRODUCT INFORMATION

Oleoyl Serotonin

Item No. 9000629

CAS Registry No.:	1002100-44-8
Formal Name:	N-[2-(5-hydroxy-1H-indol-3-yl) ethyl]-9Z-octadecenamide
MF:	$C_{28}H_{44}N_2O_2$
FW:	440.7
Purity:	≥98%
UV/Vis.:	λ_{max}: 223, 278, 301 nm
Supplied as:	A solution in ethanol
Storage:	-20°C
Stability:	≥2 years



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

Laboratory Procedures

Oleoyl serotonin 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 purged with an inert gas can be used. The solubility of oleoyl serotonin in these solvents is approximately 15 mg/ml.

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 oleoyl serotonin is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of oleoyl serotonin in PBS, pH 7.2, is approximately 0.25 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Oleoyl serotonin is a hybrid molecule patterned after N-arachidonoyl serotonin (Item No. 70665). N-Arachidonoyl serotonin is a dual antagonist of fatty acid amide hydrolase (FAAH) and the transient receptor potential vanilloid type 1 (TRPV1) channel, reducing both acute and chronic peripheral pain.[1,2] Oleoyl serotonin inhibits capsaicin-induced TRPV1 channel activation (IC_{50} = 2.57 µM) without blocking FAAH-mediated hydrolysis of arachidonoyl ethanolamine (IC_{50} > 50 µM).[1]

References

1. Ortar, G., Cascio, M.G., De Petrocellis, L., *et al.* New N-arachidonoylserotonin analogues with potential "dual" mechanism of action against pain. *J. Med. Chem.* **50**, 6554-6569 (2007).
2. Maione, S., De Petrocellis, L., de Novellis, V., *et al.* Analgesic actions of N-arachidonoyl-serotonin, a fatty acid amide hydrolase inhibitor with antagonistic activity at vanilloid TRPV1 receptors. *Br. J. Pharmacol.* **150**, 766-781 (2007).

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