

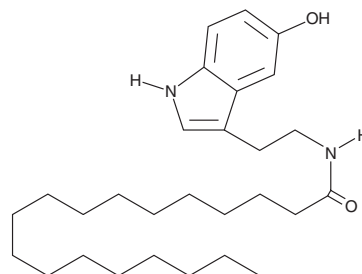
# PRODUCT INFORMATION



## Stearoyl Serotonin

Item No. 9000631

**CAS Registry No.:** 67964-87-8  
**Formal Name:** N-[2-(5-hydroxy-1H-indol-3-yl)ethyl]-octadecanamide  
**MF:** C<sub>28</sub>H<sub>46</sub>N<sub>2</sub>O<sub>2</sub>  
**FW:** 442.7  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 279 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



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

### Laboratory Procedures

Stearoyl serotonin is supplied as a crystalline solid. A stock solution may be made by dissolving the stearoyl serotonin in the solvent of choice, which should be purged with an inert gas. Stearoyl serotonin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of stearoyl serotonin in ethanol is approximately 2.5 mg/ml and approximately 20 mg/ml in DMSO and DMF.

### Description

Stearoyl serotonin is a hybrid molecule patterned after arachidonoyl serotonin (Item No. 70665). 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.<sup>1,2</sup> The effects of replacing the arachidonoyl portion with the saturated 18-carbon stearoyl moiety have not been studied. However, replacement of arachidonate with saturated 11- or 12-carbon fatty acids produces compounds that potently inhibit capsaicin-induced TRPV1 channel activation (IC<sub>50</sub> = 0.76 μM) without blocking FAAH-mediated hydrolysis of arachidonoyl ethanolamine (IC<sub>50</sub> > 50 μM).<sup>1</sup>

### References

- 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(26)**, 6554-6569 (2007).
- 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(6)**, 766-781 (2007).

#### 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.

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#### 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