

# PRODUCT INFORMATION



## Oleoyl Serotonin-d<sub>17</sub>

Item No. 9000694

**Formal Name:** N-[2-(5-hydroxy-1H-indol-3-yl)ethyl]-9Z-11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-d<sub>17</sub> octadecenamide

**MF:** C<sub>28</sub>H<sub>27</sub>D<sub>17</sub>N<sub>2</sub>O<sub>2</sub>

**FW:** 457.8

**Chemical Purity:** ≥98% (Oleoyl Serotonin)

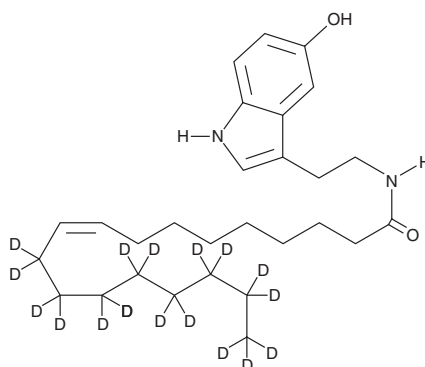
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>17</sub>); ≤1% d<sub>0</sub>

**UV/Vis.:** λ<sub>max</sub>: 223, 279, 302 nm

**Supplied as:** A 1 mg/ml 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-d<sub>17</sub> is intended for use as an internal standard for the quantification of oleoyl serotonin by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Oleoyl serotonin-d<sub>17</sub> 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-d<sub>17</sub> in these solvents is approximately 15 mg/ml.

### Description

Oleoyl 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> Oleoyl serotonin inhibits capsaicin-induced TRPV1 channel activation (IC<sub>50</sub> = 2.57 μM) without blocking FAAH-mediated hydrolysis of arachidonoyl ethanolamide (IC<sub>50</sub> > 50 μM).<sup>1</sup>

### 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).

#### 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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