

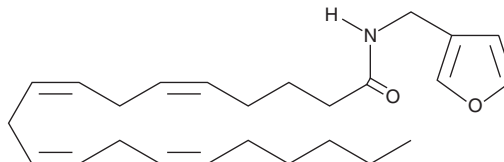
# PRODUCT INFORMATION



## UCM707

Item No. 10045

**CAS Registry No.:** 390824-20-1  
**Formal Name:** N-(3-furanylmethyl)-5Z,8Z,11Z,14Z-eicosatetraenamide  
**MF:** C<sub>25</sub>H<sub>37</sub>NO<sub>2</sub>  
**FW:** 383.6  
**Purity:** ≥98%  
**Stability:** ≥1 year at -20°C  
**Supplied as:** A solution in methyl acetate



### Laboratory Procedures

For long term storage, we suggest that UCM707 be stored as supplied at -20°C. It should be stable for at least one year.

UCM707 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 purged with an inert gas can be used. The solubility of UCM707 in these solvents is approximately 20 mg/ml.

UCM707 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methyl acetate solution of UCM707 should be diluted with the aqueous buffer of choice. UCM707 has a solubility of 250 µg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Numerous analogs of arachidonoyl ethanolamide (AEA, anandamide) potentiate its biological activity.<sup>1</sup> This potentiation is ascribed either to inhibition of AEA reuptake into neurons, or inhibition of fatty acid amide hydrolase (FAAH) within the neurons.<sup>2</sup> One of the more potent and selective reuptake inhibitors is UCM707, a 3-furyl arachidonoyl analog. UCM707 has an IC<sub>50</sub> value of 0.8 µM for the inhibition of tritiated AEA uptake into human U937 cells but has a low affinity for FAAH, exhibiting an IC<sub>50</sub> value of 30 µM.<sup>3</sup> UCM707 also potentiates the biological effects of AEA when co-administered in rats.<sup>4</sup>

### References

1. Devane, W.A., Hanus, L., Breuer, A., *et al.* Isolation and structure of a brain constituent that binds to the cannabinoid receptor. *Science* **258**, 1946-1949 (1992).
2. Deutsch, D.G., Glaser, S.T., Howell, J.M., *et al.* The cellular uptake of anandamide is coupled to its breakdown by fatty-acid amide hydrolase. *J. Biol. Chem.* **276(10)**, 6967-6973 (2001).
3. López-Rodríguez, M.L., Viso, A., Ortega-Gutiérrez, S., *et al.* Design, synthesis and biological evaluation of new endocannabinoid transporter inhibitors. *Eur. J. Med. Chem.* **38**, 403-412 (2003).
4. de Lago, E., Fernandez-Ruiz, J., Ortega-Gutiérrez, S., *et al.* UCM707, a potent and selective inhibitor of endocannabinoid uptake, potentiates hypokinetic and antinociceptive effects of anandamide. *Eur. J. Pharmacol.* **449**, 99-103 (2002).

#### 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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