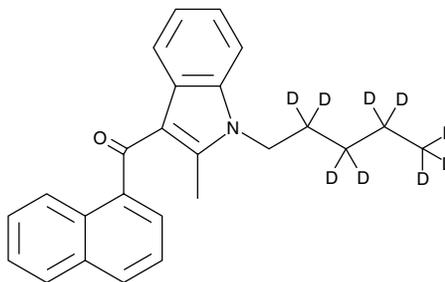


Product Information



JWH 007-d₉
Item No. 10486

CAS Registry No.: 1651833-48-5
Formal Name: (2-methyl-1-pentyl-1H-indol-3-yl)-
1-naphthalenyl-2,2,3,3,4,4,5,5,5-d₉-
methanone
MF: C₂₅H₁₆D₉NO
FW: 364.5
Chemical Purity: ≥98%
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₉); ≤1% d₀
Stability: ≥1 year at -20°C
Supplied as: A solution in methyl acetate
UV/Vis.: λ_{max}: 218, 319 nm



Laboratory Procedures

JWH 007-d₉ contains nine deuterium atoms at the 2, 2', 3, 3', 4, 4', 5, 5, and 5 positions. It is intended for use as an internal standard for the quantification of JWH 007 by GC- or LC-mass spectrometry (MS). For long term storage, we suggest that JWH 007-d₉ be stored as supplied at -20°C. It should be stable for at least one year.

JWH 007-d₉ 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 JWH 007-d₉ in these solvents is approximately 0.15, 1.5, and 2.5 mg/ml in ethanol, DMSO, and DMF, respectively.

JWH 007-d₉ is used as an internal standard for the quantification of JWH 007 by stable isotope dilution 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).

JWH 007 is a potent cannabinoid (CB) receptor agonist that avidly binds to both CB₁ and CB₂ (K_i = 9.5 and 2.9 nM, respectively).^{1,2} This compares favorably with the binding of Δ⁹-THC, which binds CB₁ and CB₂ with K_i values of 41 and 36 nM, respectively.² Similarly, JWH 007 performs comparably to Δ⁹-THC in murine studies on spontaneous activity, antinociception, hypothermia, and catalepsy.¹

References

- Huffman, J.W., Dai, D., Martin, B.R., *et al.* Design, synthesis and pharmacology of cannabimimetic indoles. *Bioorg. Med. Chem. Lett.* **4**(4), 563-566 (1994).
- Huffman, J.W., Zengin, G., Wu, M.-J., *et al.* Structure-activity relationships for 1-alkyl-3-(1-naphthoyl)indoles at the cannabinoid CB₁ and CB₂ receptors: steric and electronic effects of naphthoyl substituents. New highly selective CB₂ receptor agonists. *Bioorg. Med. Chem.* **13**, 89-112 (2005).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/10486

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY. NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. 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 will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have **any obligation or liability**, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer's **exclusive remedy** and Cayman's sole liability hereunder shall be limited to a **refund** of the purchase price, or at Cayman's option, the **replacement**, at no cost to Buyer, of all material that does not meet our specifications.

Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material.

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