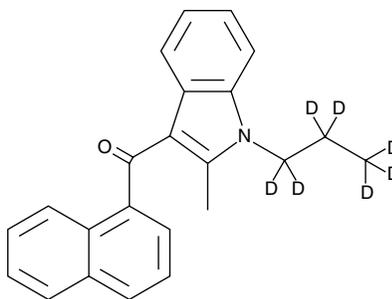


Product Information



JWH 015-d₇
Item No. 10660

CAS Registry No.: 1346601-16-8
Formal Name: (2-methyl-1-propyl-(1,1,2,2,3,3,3-d₇)-1H-indol-3-yl)-1-naphthalenyl-methanone
MF: C₂₃H₁₄D₇NO
FW: 334.5
Chemical Purity: ≥98%
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₇); ≤1% d₀
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 219, 319 nm



Laboratory Procedures

JWH 015-d₇ contains seven deuterium atoms at the 1, 1', 2, 2', 3, 3, and 3 positions. It is intended for use as an internal standard for the quantification of JWH 015 by GC- or LC-mass spectrometry (MS). For long term storage, we suggest that JWH 015-d₇ be stored as supplied at -20°C. It should be stable for at least two years.

JWH 015-d₇ is supplied as a crystalline solid. A stock solution may be made by dissolving the JWH 015-d₇ in the solvent of choice. JWH 015-d₇ is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of JWH 015-d₇ in these solvents is approximately 10 mg/ml.

JWH 015-d₇ is used as an internal standard for the quantification of JWH 015 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 015 is a selective aminoalkylindole peripheral cannabinoid (CB₂) receptor agonist with K_i values of 13.8 and 383 nM for human recombinant CB₂ and CB₁ receptors, respectively.¹ Using Theiler's murine encephalomyelitis virus as a model for human multiple sclerosis, treatment with WIN 55,212-2, ACEA, and JWH 015 significantly improved the neurological deficit of established disease.² JWH 015 was shown to reduce microglial activation, abrogate antigen expression, and decrease the number of CD4⁺ infiltrating T-cells in the spinal cord. In addition, JWH 015 reduces IFN-γ-induced up-regulation of CD40 expression in mouse microglial cells by interfering with the JAK/STAT1 pathway.³

References

- Pertwee, R.G. Pharmacology of cannabinoid receptor ligands. *Current Medicinal Chemistry* **6**, 635-664 (1999).
- Arévalo-Martín, Á., Vela, J.M., Molina-Holgado, E., *et al.* Therapeutic action of cannabinoids in a murine model of multiple sclerosis. *J. Neurosci.* **23**(7), 2511-2516 (2003).
- Enrhart, J., Obregon, D., Mori, T., *et al.* Stimulation of cannabinoid receptor 2 (CB₂) suppresses microglial activation. *Journal of Neuroinflammation* **2**, 29-41 (2005).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/10660

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

MATERIAL 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 Material Safety Data Sheet, which has been sent *via* email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will **meet our specifications at the time of delivery.**

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.

For further details, please refer to our **Warranty and Limitation of Remedy** located on our website and in our catalog.

Copyright Cayman Chemical Company, 11/20/2012

Cayman Chemical

Mailing address

1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone

(800) 364-9897
(734) 971-3335

Fax

(734) 971-3640

E-Mail

custserv@caymanchem.com

Web

www.caymanchem.com