

PRODUCT INFORMATION



4-Quinolone-3-Carboxamide Furan CB₂ Agonist

Item No. 11094

CAS Registry No.: 1314230-75-5

Formal Name: 6-(2-furanyl)-1,4-dihydro-8-methoxy-4-oxo-1-pentyl-N-tricyclo[3.3.1.1^{3,7}]dec-1-yl-3-quinolinecarboxamide

Synonym: 4Q3C CB₂ Agonist

MF: C₃₀H₃₆N₂O₄

FW: 488.6

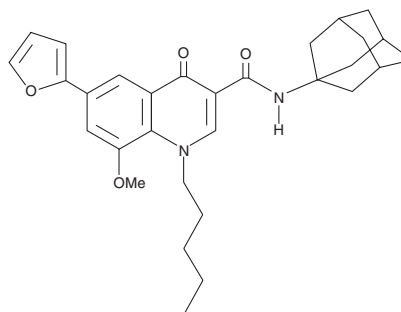
Purity: ≥98%

UV/Vis.: λ_{max}: 220, 283, 339 nm

Supplied as: A crystalline solid

Storage: -20°C

Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly



Laboratory Procedures

4-Quinolone-3-carboxamide furan CB₂ agonist (4Q3C CB₂ agonist) is supplied as a crystalline solid. A stock solution may be made by dissolving the 4Q3C CB₂ agonist in the solvent of choice. 4Q3C CB₂ Agonist is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of 4Q3C CB₂ agonist in ethanol is approximately 30 mg/ml and approximately 3 mg/ml in DMSO and DMF.

4Q3C CB₂ Agonist is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 4Q3C CB₂ agonist should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. 4Q3C CB₂ Agonist has a solubility of approximately 0.2 mg/ml in a 1:4 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Agonists of the peripheral CB receptor CB₂ may have antinociceptive and anti-inflammatory effects, as well as prevent osteoporosis.^{1,2} 4Q3C CB₂ Agonist is a high-affinity ligand of CB₂ (K_i = 8.5 nM) with little affinity for CB₁ (K_i >10,000 nM).³ This compound demonstrates antinociceptive efficacy in the mouse formalin test at 1 mg/kg, an action which is blocked by a CB₂-selective antagonist, AM630 (Item No. 10006974).³

References

1. Guindon, J. and Hohmann, A.G. Cannabinoid CB₂ receptors: A therapeutic target for the treatment of inflammatory and neuropathic pain. *Br. J. Pharmacol.* **153**, 319-334 (2008).
2. Idris, A.I., van't Hof, R.J., Greig, I.R., *et al.* Regulation of bone mass, bone loss and osteoclast activity by cannabinoid receptors. *Nat. Med.* [In press] 1-6 (2005).
3. Pasquini, S., De Rosa, M., Pedani, V., *et al.* Investigations on the 4-quinolone-3-carboxylic acid motif. 4. Identification of new potent and selective ligands for the cannabinoid type 2 receptor with diverse substitution patterns and antihyperalgesic effects in mice. *J. Med. Chem.* **54**, 5444-5453 (2011).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/26/2016

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