

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

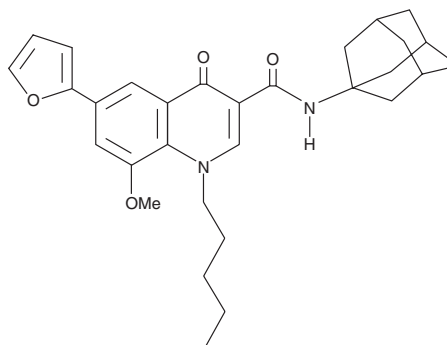
Purity: ≥98%

UV/Vis.: λ_{max}: 220, 283, 339 nm

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

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

4-Quinolone-3-carboxamide furan CB₂ agonist is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 4-quinolone-3-carboxamide furan CB₂ agonist should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. 4-Quinolone-3-carboxamide furan 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(2)**, 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.* **11(7)**, 774-779 (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(15)**, 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

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