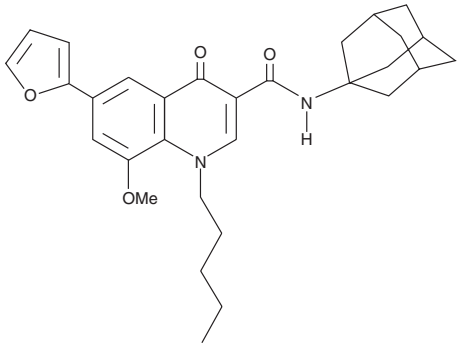
PRODUCT INFORMATION

4-Quinolone-3-Carboxamide Furan CB_2 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[3.3.1.13,7]dec-1-yl-3-quinolinecarboxamide
Synonym:	4Q3C CB_2 Agonist
MF:	$C_{30}H_{36}N_2O_4$
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 CB_2 agonist is supplied as a crystalline solid. A stock solution may be made by dissolving the 4-quinolone-3-carboxamide furan CB_2 agonist in the solvent of choice, which should be purged with an inert gas. 4-Quinolone-3-carboxamide furan CB_2 agonist is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 4-quinolone-3-carboxamide furan CB_2 agonist in ethanol is approximately 30 mg/ml and approximately 3 mg/ml in DMSO and DMF.

4-Quinolone-3-carboxamide furan CB_2 agonist is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 4-quinolone-3-carboxamide furan CB_2 agonist should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. 4-Quinolone-3-carboxamide furan CB_2 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 CB_2 may have antinociceptive and anti-inflammatory effects, as well as prevent osteoporosis.[1,2] 4Q3C CB_2 Agonist is a high-affinity ligand of CB_2 (K_i = 8.5 nM) with little affinity for CB_1 (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 CB_2-selective antagonist, AM630 (Item No. 10006974).[3]

References

1. Guindon, J. and Hohmann, A.G. Cannabinoid CB_2 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).

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