
Product Data Sheet

Product Name: 4-Quinolone-3-Carboxamide CB2 Ligand

Cat. No.: GC17100

Chemical Properties

Cas. No. 1314230-69-7

Chemical Name 1,4-dihydro-8-methoxy-4-oxo-1-pentyl-N-tricyclo[3.3.1.1^{3,7}]dec-1-yl-3-quinolinecarboxamideSMILES O=C(C1=CN(CCCCC)C2=C(C=CC=C2OC)C1=O)N[C@@]34CC5C[C@H](C4)C[C@H](C3)C5Formula C₂₆H₃₄N₂O₃ M.Wt 422.6

Solubility ≤30mg/ml in ethanol;3mg/ml in DMSO;3mg/ml in dimethyl formamide Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure **Background**

Ki: 0.6 nM

4-Quinolone-3-Carboxamide CB2 Ligand is a ligand of the CB2 receptor.

Cannabinoids (CBs) and their synthetic analogs exhibit biochemical and pharmacological effects via interacting with the central CB1 and peripheral CB2 receptors. The CB2 receptor has emerged as a pharmacological target for treating osteoporosis, and for eliciting antinociceptive effects in various pain models .

In vitro: Previous study found that 4-Quinolone-3-carboxamide CB2 Ligand was a selective, high-affinity ligand of the CB2 receptor, displaying an in vitro Ki values of 0.6 nM for CB2 and over 10,000 nM for CB1 [1].

Caution: Product has not been fully validated for medical applications. For research use only.

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In vivo: In animal study, it was found that 4-quinolone-3-carboxamide CB2 Ligand at a dose of 6 mg/kg showed antinociceptive activity in a formalin test of nocifensive response in mice. Moreover, such analgesic affect could not be significantly reversed by the CB2 antagonist AM630 treatment, which suggested that 4-quinolone-3-carboxamide CB2 Ligand might behave as an inverse agonist [1].

Clinical trial: So far, no clinical study has been conducted for 4-quinolone-3-carboxamide CB2 Ligand.

Reference:

[1] S. Pasquini, M. De Rosa, V. Pedani, 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. *Journal of Medicinal Chemistry* 54, 5444-5453 (2011).

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