# Product Data Sheet

Product Name: 4-Quinolone-3-Carboxamide Furan CB2 Agonist
Cat. No.: GC15850

## Chemical Properties

| | | | |
|---|---|---|---|
| Cas. No. | 1314230-75-5 | | |
| Chemical 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 | | |
| SMILES | O=C(C1=CN(CCCCC)C2=C(C=C(C3=CC=CO3)C=C2OC)C1=O)N[C@@]45CC6C[C@H](C5)C[C@H](C4)C6 | | |
| Formula | $C_{30}H_{36}N_2O_4$ | M.Wt | 488.6 |
| 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 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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: 8.5 nM

4-Quinolone-3-Carboxamide Furan CB2 Agonist is a high-affinity ligand of CB2.

The endocannabinoid system consists of endogenous cannabinoids (endocannabinoids), cannabinoid receptors (primarily CB1 and CB2), and the enzymes that synthesize and degrade endocannabinoids.

In vitro: Previous study found that 4-Quinolone-3-Carboxamide Furan CB2 Agonist (4g) was devoid of any potential “indirect” agonist activity at cannabinoid receptors, exerted by prolonging the lifespan of endocannabinoids because 4g at up to a 10 μM concentration did not inhibit anandamide or 2-AG degradation by FAAH or MAGL, respectively. In cytotosicity study, 4g was tested at 1 μM and the results showed that it exhibited very low or no cytotoxicity, the cell viability being above 95% after a 72 h treatment [1].

In vivo: In animal study, 4g was found to have antinociceptive activity in the formalin test in


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mice. Moreover, 4g was very potent with maximal effect being reached at the 1 mg/kg dose and efficacious also on the first phase of the nocifensive response. The effect of 4g could be strongly reduced by the addition of AM630, a CB2-selective antagonist/inverse agonist, therefore demonstrating that 4g might act as a potent and selective CB2 agonist [1].

Clinical trial: Up to now, 4-Quinolone-3-Carboxamide Furan CB2 Agonist is still in the preclinical development stage.

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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