

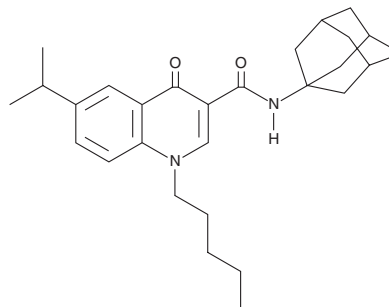
# PRODUCT INFORMATION



## SER-601

Item No. 11743

**CAS Registry No.:** 1048038-90-9  
**Formal Name:** 1,4-dihydro-6-(1-methylethyl)-4-oxo-1-pentyl-N-tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl-3-quinolinecarboxamide  
**MF:** C<sub>28</sub>H<sub>38</sub>N<sub>2</sub>O<sub>2</sub>  
**FW:** 434.6  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 217, 250, 258, 307, 323, 335 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

SER-601 is supplied as a crystalline solid. A stock solution may be made by dissolving the SER-601 in the solvent of choice, which should be purged with an inert gas. SER-601 is soluble in organic solvents such as ethanol and dimethyl formamide. The solubility of SER-601 in these solvents is approximately 3 and 5 mg/ml, respectively.

### Description

SER-601 is a potent and selective peripheral cannabinoid (CB<sub>2</sub>) receptor agonist with 190-fold selectivity for CB<sub>2</sub> over the central CB<sub>1</sub> receptor (K<sub>i</sub>s = 6.3 and 1,220 nM, respectively).<sup>1,2</sup> At 3 mg/kg, SER-601 has analgesic effects in a formalin-induced nocifensive study in mice without cannabis-like behavioral effects due to its low affinity for the CB<sub>1</sub> receptor.<sup>1,2</sup> SER-601 also has antidiabetic effects.<sup>3</sup> Two to four week exposure to SER-601 ameliorates insulin resistance *in vivo* and increases insulin secretion and accumulation in pancreatic islets isolated from high-fat diet/streptozotocin (HFD/STZ)-induced diabetic mice.

### References

1. Pasquini, S., Botta, L., Semeraro, T., *et al.* Investigations on the 4-quinolone-3-carboxylic acid motif. 2. Synthesis and structure-activity relationship of potent and selective cannabinoid-2 receptor agonists endowed with analgesic activity *in vivo*. *J. Med. Chem.* **51(16)**, 5075-5084 (2008).
2. Pasquini, S., Ligresti, A., Mugnaini, C., *et al.* Investigations on the 4-quinolone-3-carboxylic acid motif. 3. Synthesis, structure-affinity relationships, and pharmacological characterization of 6-substituted 4-quinolone-3-carboxamides as highly selective cannabinoid-2 receptor ligands. *J. Med. Chem.* **53(16)**, 5915-5928 (2012).
3. Zhang, X., Gao, S., Niu, J., *et al.* Cannabinoid 2 receptor agonist improves systemic sensitivity to insulin in high-fat diet/streptozotocin-induced diabetic mice. *Cell Physiol. Biochem.* **40(5)**, 1175-1185 (2016).

#### 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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