# PRODUCT INFORMATION

## SER-601

*Item No. 11743*

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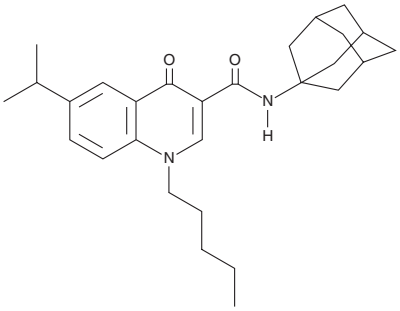
| **CAS Registry No.:** | 1048038-90-9 |
| **Formal Name:** | 1,4-dihydro-6-(1-methylethyl)-4-oxo-1-pentyl-N-tricyclo[3.3.1.1$^{3,7}$]dec-1-yl-3-quinolinecarboxamide |
| **MF:** | $C_{28}H_{38}N_2O_2$ |
| **FW:** | 434.6 |
| **Purity:** | ≥98% |
| **UV/Vis.:** | $\lambda_{max}$: 217, 250, 258, 307, 323, 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 ($CB_2$) receptor agonist with 190-fold selectivity for $CB_2$ over the central $CB_1$ receptor ($K_i$s = 6.3 and 1,220 nM, respectively).[1,2] 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 $CB_1$ receptor.[1,2] SER-601 also has antidiabetic effects.[3] 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).





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