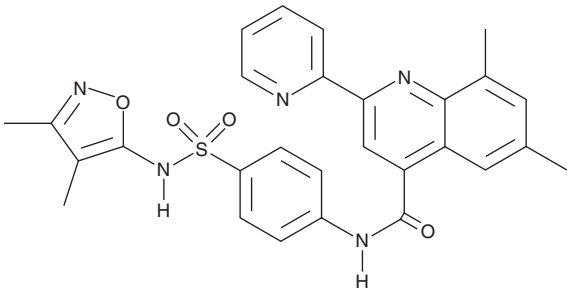
PRODUCT INFORMATION

ML-193

Item No. 15184

CAS Registry No.: 713121-80-3
Formal Name: N-[4-[[(3,4-dimethyl-5-isoxazolyl)amino] sulfonyl]phenyl]-6,8-dimethyl-2-(2-pyridinyl)-4-quinolinecarboxamide
Synonym: CID-1261822
MF: $C_{28}H_{25}N_5O_4S$
FW: 527.6
Purity: ≥95%
UV/Vis.: λ_{max}: 261, 279 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

ML-193 is supplied as a crystalline solid. A stock solution may be made by dissolving the ML-193 in the solvent of choice, which should be purged with an inert gas. ML-193 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of ML-193 in these solvents is approximately 0.1, 2, and 3 mg/ml, repsectively.

ML-193 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ML-193 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. ML-193 has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

ML-193 is a potent antagonist of GPR55 (IC_{50} = 221 nM).[1,2] It displays selectivity for GPR55 over CB_1, CB_2, and GPR35. ML-193 inhibits GPR55-dependent ERK phosphorylation (IC_{50} = 65 nM) and blocks translocation of PKCβII.[1] ML-193 blocks increases in intracellular calcium levels induced by lysophosphatidylinositol (LPI) in dissociated rat periaqueductal gray neurons and modulates pain perception in LPI-treated rats.[3]

References

1. Heynen-Genel, S., Dahl, R., Shi, S., *et al*. Screening for selective ligands for GPR55. *Probe Reports from the NIH Molecular Libraries Program* (2010).
2. Kotsikorou, E., Sharir, H., Shore, D. M. *et al*. Identification of the GPR55 antagonist binding site using a novel set of high-potency GPR55 selective ligands. *Biochemistry* **52(52)**, 9456-9469 (2013).
3. Deliu, E., Sperow, M., Console-Bram, L., *et al*. The lysophosphatidylinositol receptor GPR55 modulates pain perception in the periaqueductal gray. *Mol. Pharmacol.* **88(2)**, 265-272 (2015).

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