

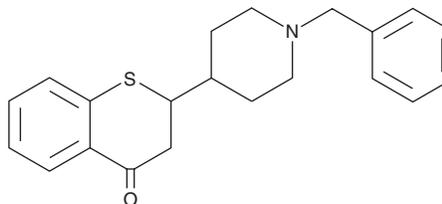
PRODUCT INFORMATION



WQ 1

Item No. 40462

CAS Registry No.: 1204401-49-9
Formal Name: 2,3-dihydro-2-[1-(phenylmethyl)-4-piperidinyl]-4H-1-benzothiopyran-4-one
MF: C₂₁H₂₃NOS
FW: 337.5
Purity: ≥98%
Supplied as: A 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

WQ 1 is supplied as a solid. A stock solution may be made by dissolving the WQ 1 in the solvent of choice, which should be purged with an inert gas. WQ 1 is soluble in acetonitrile and DMSO.

Description

WQ 1 is an antagonist of sigma non-opioid intracellular receptor 1 (σ_1 receptor; $K_i = 0.01$ nM).¹ It is selective for the σ_1 receptor over the σ_2 receptor and dopamine transporter (DAT; K_i s = 295.12 and 1,585 nM, respectively). WQ 1 (10 μ M) decreases proliferation of MCF-7 breast cancer and MCF-7/adr multidrug-resistant breast cancer cells.² It induces cell cycle arrest at the G₀/G₁ phase in MCF-7 and MCF-7/adr cancer cells and apoptosis in MCF-7/adr cancer cells. WQ 1 (1 mg/kg) increases the duration of morphine-induced latency to tail withdrawal in the tail-flick test in mice when administered 30 minutes prior to the test. WQ 1 (3 or 7 mg/kg) reduces stress-induced food consumption in rats.¹

References

1. Del Bello, F., Micioni Di Bonaventura, M.V., Bonifazi, A., *et al.* Investigation of the role of chirality in the interaction with σ receptors and effect on binge eating episode of a potent σ_1 antagonist analogue of spipethiane. *ACS Chem. Neurosci.* **10**(8), 3391-3397 (2019).
2. Piergentili, A., Amantini, C., Del Bello, F., *et al.* Novel highly potent and selective sigma 1 receptor antagonists related to spipethiane. *J. Med. Chem.* **53**(3), 1261-1269 (2010).

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.

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