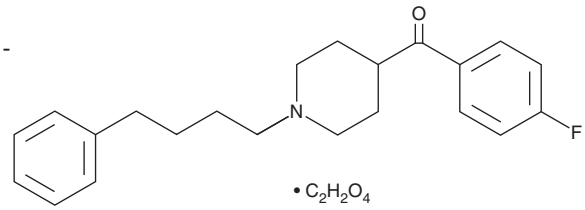
PRODUCT INFORMATION

4F 4PP (oxalate)

Item No. 35005

CAS Registry No.: 144734-36-1
Formal Name: (4-fluorophenyl)[1-(4-phenylbutyl)-4-piperidinyl]-methanone, monoethanedioate
MF: $C_{22}H_{26}FNO \bullet C_2H_2O_4$
FW: 429.5
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

4F 4PP (oxalate) is supplied as a solid. A stock solution may be made by dissolving the 4F 4PP (oxalate) in the solvent of choice, which should be purged with an inert gas. 4F 4PP (oxalate) is soluble in organic solvents such as ethanol and DMSO. The solubility of 4F 4PP (oxalate) in these solvents is approximately 20 and 100 mM, respectively.

Description

4F 4PP is an antagonist of the serotonin (5-HT) receptor subtype 5-HT_{2A} (K_i = 5.3 nM).[1] It is selective for 5-HT_{2A} receptors over 5-HT_{1C} receptors (K_i = 620 nM). It inhibits 5-HT-induced currents in *Xenopus* oocytes expressing human 5-HT_{2A} receptors (IC_{50} = 5.15 µM).[2] Spinal superfusion of 4F 4PP (100 µM) reduces the area of electrically stimulated spinal field potentials in a rat model of neuropathic pain induced by spinal nerve ligation (SNL).[3]

References

1. Herndon, J.L., Ismaiel, A., Ingher, S.P., *et al.* Ketanserin analogues: Structure-affinity relationships for 5-HT_2 and 5-HT_{1C} serotonin receptor binding. *J. Med. Chem.* **35(26)**, 4903-4910 (1992).
2. Acuña-Castillo, C., Villalobos, C., Moya, P.R., *et al.* Differences in potency and efficacy of a series of phenylisopropylamine/phenylethylamine pairs at 5-HT_{2A} and 5-HT_{2C} receptors. *Br. J. Pharmacol.* **136(4)**, 510-519 (2002).
3. Aira, Z., Buesa, I., Salgueiro, M., *et al.* Subtype-specific changes in 5-HT receptor-mediated modulation of C fibre-evoked spinal field potentials are triggered by peripheral nerve injury. *Neuroscience* **168(3)**, 831-841 (2010).

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