# 4F 4PP oxalate

**Cat. No.:** HY-100970

**CAS No.:** 144734-36-1

**Molecular Formula:** $C_{24}H_{28}FNO_5$

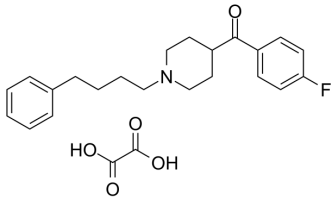
**Molecular Weight:** 429.48

**Target:** 5-HT Receptor

**Pathway:** GPCR/G Protein; Neuronal Signaling

**Storage:** 4°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 12.5 mg/mL (29.10 mM; ultrasonic and warming and heat to 60°C)

| Preparing Stock Solutions | Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 2.3284 mL | 11.6420 mL | 23.2840 mL |
| | 5 mM | 0.4657 mL | 2.3284 mL | 4.6568 mL |
| | 10 mM | 0.2328 mL | 1.1642 mL | 2.3284 mL |

Please refer to the solubility information to select the appropriate solvent.

**In Vivo**

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: 1.67 mg/mL (3.89 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 1.67 mg/mL (3.89 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 1.67 mg/mL (3.89 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

4F 4PP (oxalate) is a selective 5-HT2A antagonist with almost as high affinity ($K_i$= 5.3 nM) as ketanserin but with a much lower affinity for 5-HT2C sites ($K_i$= 620 nM)[1][2][3][4].

**$IC_{50}$ & Target**

| 5-$HT_{2A}$ Receptor | 5-$HT_{2C}$ Receptor |
|---|---|
| 5.3 nM (Ki) | 620 nM (Ki) |

**In Vivo**

4F 4PP (100 nM) reduces the lowest [D-ala2,N-me-phe4,gly.l5]-enkephalin (DAMGO) concentration and can produce a significant depression of evoked field potentials[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## REFERENCES

[1]. Aira Z, et al. Selective impairment of spinal mu-opioid receptor mechanism by plasticity of serotonergic facilitation mediated by 5-HT2A and 5-HT2B receptors. Pain. 2012;153(7):1418-1425.

[2]. Lee SH, et al. Peripheral serotonin receptor 2B and transient receptor potential channel 4 mediate pruritus to serotonergic antidepressants in mice. J Allergy Clin Immunol. 2018;142(4):1349-1352.e16.

[3]. Rodríguez-Muñoz M, et al. Fenfluramine diminishes NMDA receptor-mediated seizures via its mixed activity at serotonin 5HT2A and type 1 sigma receptors. Oncotarget. 2018;9(34):23373-23389. Published 2018 May 4.

[4]. Gerhold KJ, et al. Pronociceptive and Antinociceptive Effects of Buprenorphine in the Spinal Cord Dorsal Horn Cover a Dose Range of Four Orders of Magnitude. J Neurosci. 2015;35(26):9580-9594.



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