Pipamperone

Cat. No.: HY-100703

CAS No.: 1893-33-0

Molecular Formula: $C_{21}H_{30}FN_3O_2$

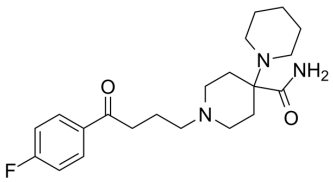
Molecular Weight: 375.48

Target: 5-HT Receptor; Dopamine Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage: 4°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (266.33 mM; Need ultrasonic)

0.1 M HCL : 25 mg/mL (66.58 mM; Need ultrasonic)

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
1 mM	2.6633 mL	13.3163 mL	26.6326 mL
5 mM	0.5327 mL	2.6633 mL	5.3265 mL
10 mM	0.2663 mL	1.3316 mL	2.6633 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: ≥ 2.5 mg/mL (6.66 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.66 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.66 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Pipamperone (Floropipamide; McN-JR 3345; R 3345) is a high-affinity antagonist of 5-HT_{2A} receptor (pK_i=8.2) and D_4 receptor (pK_i=8.0) and a low-affinity antagonist of D_2 receptor (pK_i=6.7)[1].

IC_{50} & Target

5-HT_{2A} Receptor 8.2 (pKi)	5-HT_{2C} Receptor 6.9 (pKi)	5-HT_1 Receptor 5.7 (pKi)	D_4 receptor 8.0 (pKi)
D_2 receptor 6.7 (pKi)	α_1 receptor 7.2 (pKi)		

REFERENCES

[1]. Erik Buntinx, MD, et al. Selective Serotonergic Properties of Low-Dose Pipamperone May Enhance Antidepressant Effect: Preclinical Evidence.

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