Sumanirole maleate

Cat. No.: HY-70081A

CAS No.: 179386-44-8

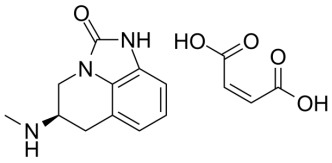
Molecular Formula: $C_{15}H_{17}N_3O_5$

Molecular Weight: 319.31

Target: Dopamine 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 : 50 mg/mL (156.59 mM; Need ultrasonic)
H_2O : 10 mg/mL (31.32 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.1318 mL	15.6588 mL	31.3175 mL
5 mM	0.6264 mL	3.1318 mL	6.2635 mL
10 mM	0.3132 mL	1.5659 mL	3.1318 mL

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

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 50 mg/mL (156.59 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (7.83 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (7.83 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (7.83 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Sumanirole maleate (U-95666E; PNU-95666E) is a highly selective D2 receptor full agonist with an ED_{50} of about 46 nM. Sumanirole was developed for the treatment of Parkinson's disease and restless leg syndrome.

IC_{50} & Target

EC50: 46 nM (D2 receptor)

In Vitro

Sumanirole is a highly valuable tool compound for basic research to identify neurobiological mechanisms that are based on

a dopamine D2-linked (vs. D1, D3, D4, and D5-linked) mechanism of action.

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

CUSTOMER VALIDATION

- Biomed Pharmacother. 2021, 111500.

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REFERENCES

[1]. Arthur G. Romero, et al. Synthesis of the Selective D2 Receptor Agonist PNU-95666E fromD-Phenylalanine Using a Sequential Oxidative CyclizationStrategy. J. Org. Chem. 1997, 62, 6582-6587

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