Tavapadon

Cat. No.: HY-119486

CAS No.: 1643489-24-0

Molecular Formula: $C_{19}H_{16}F_3N_3O_3$

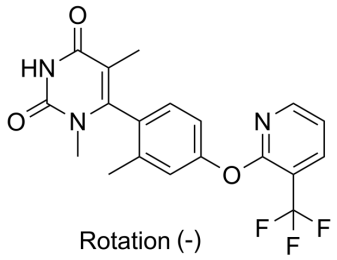
Molecular Weight: 391.34

Target: Dopamine Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (255.53 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.5553 mL	12.7766 mL	25.5532 mL
5 mM	0.5111 mL	2.5553 mL	5.1106 mL
10 mM	0.2555 mL	1.2777 mL	2.5553 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: 2.5 mg/mL (6.39 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Tavapadon (PF-06649751) is an orally active and highly selective dopamine D1/D5 receptor partial agonist. Tavapadon is effective in enabling movement and reducing disability and has the potential for Parkinson's disease[1].

IC_{50} & Target

dopamine D1/D5 receptor[1]

In Vivo

Tavapadon (PF-06649751; 0.02 and 0.04 mg/kg; s.c.) at the 0.04 mg/kg test dose increases locomotor activity, whereas the 0.02 mg/kg dose has little or no effect[1].

Tavapadon (0.04 mg/kg, s.c.) also improves parkinsonian disability scores with the maximal improvement observed at 110 min after drug administration[1].

Higher doses of Tavapadon (0.1 and 0.15 mg/kg; s.c.) leads to statistically significant improvement relative to vehicle in locomotor activity[1].

Tavapadon (0.1 mg/kg; s.c.) has the mean maximal unbound plasma concentration of 8 nM and achieves 3 hours after

compound administration in captive-bred macaques[1].

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

CUSTOMER VALIDATION

- Nat Commun. 2022 Jun 8;13(1):3186.

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REFERENCES

[1]. Young D, et al. D1 Agonist Improved Movement of Parkinsonian Nonhuman Primates with Limited DyskinesiaSide Effects. ACS Chem Neurosci. 2020 Feb 19;11(4):560-566.

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