D4R antagonis-2

Cat. No.: HY-145906

CAS No.: 2846077-70-9

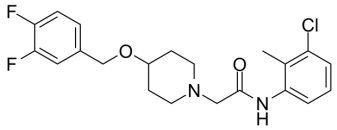
Molecular Formula: $C_{21}H_{23}ClF_2N_2O_2$

Molecular Weight: 408.87

Target: Dopamine Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

D4R antagonist-2 is a potent and selective D4R antagonist with an IC_{50} of 6.52 μM. D4R antagonist-2 displays very favorable in vitro PK parameters and has good brain penetration. D4R antagonist-2 has the potential for the research of Parkinson's disease[1].

IC_{50} & Target

D_4 Receptor
6.87 μM (IC_{50})

In Vitro

D4R antagonist-2 (compound 11a) shows good activity with an K_i of 299.4 nM[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

D4R antagonist-2 displays very favorable in vitro PK parameters and is brain pentrent (K_p=2.9)[1].b>Pharmacokinetic Parameters of D4R antagonist-2 in rats[1].

rat cassette (0.25 mpk)	11a
CL (ml/min/kg)	22.0
$T_{1/2}$ (h)	4.4
C_0 (ng/ml)	91
V_{ss} (L/kg)	5.5
AUC (h*ng/mL)	747

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

Animal Model:	rats[1]
Dosage:	

Administration:	i.v.
Result:	Displayed very favorable in vitro PK parameters and was brain pentrent (K_p=2.9).

REFERENCES

[1]. Tolentino KT,et al. Discovery and characterization of benzyloxy piperidine based dopamine 4 receptor antagonists. Bioorg Med Chem Lett. 2022; 61:128615.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA