Data Sheet (Cat.No.T212004)

TargetMol

D1/D5 Receptor agonist-1

Chemical Properties

CAS No. :

Formula:

Molecular Weight:

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	D1/D5 Receptor agonist-1 is an orally active D1/D5 receptor agonist with the ability to cross the blood-brain barrier. It demonstrates significant efficacy in the cAMP pathway and β-arrestin recruitment, with EC50 values of 3.7 nM for D1R cAMP, 91 nM for D1R β-arrestin, and 129 nM for D1R internalization, and a Ki value of 111 nM for D1R binding affinity. In rats, D1/D5 Receptor agonist-1 inhibits β-arrestin signaling involved in L-DOPA-induced dyskinesia. This compound is applicable in Parkinson's disease research.
Targets(IC50)	Arrestin,Dopamine Receptor
In vitro	D1/D5 Receptor agonist-1 (Compound 24) (10^{-4} - 10 μM) demonstrates significant efficacy in the cAMP pathway and β-arrestin protein recruitment, with EC_{50} values of 3.7 nM for D1R cAMP, 91 nM for D1R β-arrestin, and 129 nM for D1R internalization. The compound shows a binding affinity K value of 111 nM for D1R.
In vivo	Compound 24, a D1/D5 receptor agonist, administered orally in a single dose of 0.3-3 mg/kg, inhibits β-arrestin signaling in a rat model of L-DOPA-induced dyskinesia in Parkinson's disease.

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