Data Sheet (Cat.No.T211611)

TargetMol

Rivanicline hydrochloride

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	Rivanicline (RJR-2403) hydrochloride is an agonist of neuronal nicotinic receptors. It shows high selectivity for nAChR in the rat cerebral cortex (Ki= 26 nM, EC50= 732 nM) and the α4β2 subtype (Ki= 26 nM, EC50= 16 μM). This compound effectively restores learning and cognitive function impairments and is applicable in research on neurodegenerative diseases such as schizophrenia or Alzheimer's disease.
Targets(IC50)	AChR
In vivo	Rivanicline hydrochloride (75-125 μmol/kg, s.c., single dose administration) reduces body temperature, respiratory rate, Y-maze activity, and acoustic startle response in a murine physiological test model, though it is less potent than nicotine. At doses of 0-1.2 μmol/kg, s.c., single dose, rivanicline hydrochloride significantly enhances passive avoidance memory retention impaired by scopolamine and improves both working and reference memory in rats with damage to the forebrain cholinergic projection system within an eight-arm radial maze test. Additionally, at a dose of 2 mg/kg, i.p., single dose, it restores learning capabilities in a model of impaired eyeblink conditioning in mice.

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