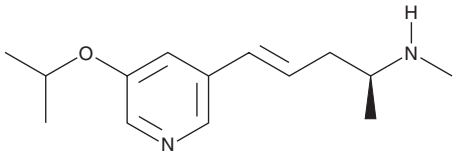
PRODUCT INFORMATION

Ispronicline

Item No. 42891

CAS Registry No.:	252870-53-4
Formal Name:	N-methyl-5-[5-(1-methylethoxy)-3-pyridinyl]-4E-penten-2S-amine
Synonyms:	AZD 3480, RJR 1734, TC 1734
MF:	$C_{14}H_{22}N_2O$
FW:	234.3
Purity:	≥98%
Supplied as:	A 10 mg/ml solution in ethanol
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Description

Ispronicline is a partial agonist of α4β2 nicotinic acetylcholine receptors (nAChRs).[1] It selectively binds to nAChRs in rat cerebral cortex (K_i = 11 nM) over α7 nAChRs in rat hippocampal membranes (K_i = >50,000 nM).[2] Ispronicline induces ion flux in thalamic synaptosomes (EC_{50} = 220 nM) with no effect in T671 muscle cells up to 100 µM, indicating selectivity for α4β2 nAChRs over α3β4 nAChRs.[1,3] It has neuroprotective effects in an *in vitro* model of oxygen-glucose deprivation using primary rat CA1 hippocampal slices at 100 µM.[2] Ispronicline (1 mg/animal) enhances recognition memory in mice, an effect that can be blocked by the nAChR antagonist mecamylamine (Item No. 14602).[3]

References

1. Lipiello, P.M., Gatto, G., Bencherif, M., *et al.* RJR-1734: A potent selective nicotinic ligand that improves cognition acutely and chronically. *Soc. Neurosci.* **Abst. 24 (Part 1)**, 88 (1998).
2. Gatto, G.J., Bohme, G.A., Caldwell, W.S., *et al.* TC-1734: An orally active neuronal nicotinic acetylcholine receptor modulator with antidepressant, neuroprotective and long-lasting cognitive effects. *CNS Drug Rev.* **10(2)**, 147-166 (2004).
3. Obinu, M.C., Reibaud, M., Miquet, J.M., *et al.* Brain-selective stimulation of nicotinic receptors by TC-1734 enhances ACh transmission from frontoparietal cortex and memory in rodents. *Prog. Neuropsychopharmacol. Biol. Psychiatry* **26(5)**, 913-918 (2002).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

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