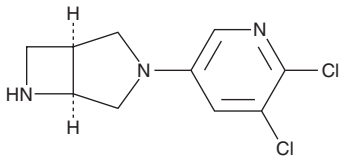
PRODUCT INFORMATION

Sofiniclin

Item No. 46219

CAS Registry No.:	799279-80-4
Formal Name:	(1S)-3-(5S,6-dichloro-3-pyridinyl)-3,6-diazabicyclo[3.2.0]heptane
Synonym:	ABT-894
MF:	$C_{10}H_{11}Cl_2N_3$
FW:	244.1
Purity:	≥98%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

Sofiniclin is supplied as a solid. A stock solution may be made by dissolving the sofiniclin in the solvent of choice, which should be purged with an inert gas. Sofiniclin is sparingly soluble (1-10 mg/ml) in DMSO and slightly soluble (0.1-1 mg/ml) in acetonitrile:water (1:1).

Description

Sofiniclin is an agonist of α4β2 nicotinic acetylcholine receptors (nAChRs).[1] It induces activation of high- and low-sensitivity α4β2 nAChRs in membrane potential assays (EC_{50}s = 3 and 17 nM, respectively) and desensitization of the same receptors with half-maximal desensitization concentration (DC_{50}) values of 11 and 49 nM, respectively, in membrane potential assays. Sofiniclin selectively binds to α4β2 nAChRs over α3β4 and α7 nAChRs (K_is = 0.9, 180, and 750 nM, respectively, for the human receptors), and it also binds to α6β2 nAChRs (K_i = 1.9 nM).[1,2] It induces analgesia in the first and second phase of the formalin test in mice at 3 mg/kg.[1] Sofiniclin inhibits levodopa-induced dyskinesias in a squirrel monkey model of Parkinson's disease.[2]

References

1. Zhang, J., Xiao, Y.-D., Jordan, K.G., *et al.* Analgesic effects mediated by neuronal nicotinic acetylcholine receptor agonists: Correlation with desensitization of α4β2* receptors. *Eur. J. Pharm. Sci.* **47(5)**, 813-823 (2012).
2. Zhang, D., Bordia, T., McGregor, M., *et al.* ABT-089 and ABT-894 reduce levodopa-induced dyskinesias in a monkey model of Parkinson's disease. *Mov. Disord.* **29(4)**, 508-517 (2014).

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.

WARRANTY AND LIMITATION OF REMEDY
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