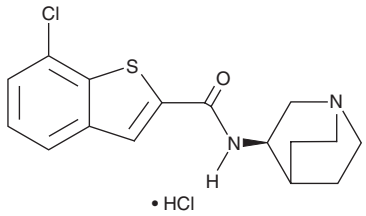
PRODUCT INFORMATION

EVP-6124 (hydrochloride)

Item No. 30073

CAS Registry No.:	550999-74-1
Formal Name:	N-(3R)-1-azabicyclo[2.2.2]oct-3-yl-7-chloro-benzo[b]thiophene-2-carboxamide, monohydrochloride
MF:	$C_{16}H_{17}ClN_2OS \bullet HCl$
FW:	357.3
Purity:	≥95%
UV/Vis.:	λ_{max}: 244, 281 nm
Supplied as:	A crystalline 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

EVP-6124 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the EVP-6124 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. EVP-6124 (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of EVP-6124 (hydrochloride) in ethanol is approximately 20 mg/ml and 30 mg/ml in DMSO and DMF.

EVP-6124 (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, EVP-6124 (hydrochloride) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. EVP-6124 (hydrochloride) has a solubility of approximately 0.16 mg/ml in a 1:5 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

EVP-6124 is a partial agonist of α7 subunit-containing nicotinic acetylcholine receptors (nAChRs; IC_{50} = 22.38 nM).[1] It is 1,000-fold selective for α7 subunit-containing nAChRs over α4β2 subunit-containing nAChRs at 10 µM, as well as a panel of 60 peptide and nonpeptide receptors, ion channels, and transporters. EVP-6124 induces inward currents in *Xenopus* oocytes expressing human α7 subunit-containing nAChRs (EC_{50} = 0.16 µM). *In vivo*, EVP-6124 (0.1, 0.3, and 1 mg/kg) reverses scopolamine-induced deficits in the novel object recognition task and prevents natural forgetting of a familiar object in rats. It reduces premature responding, a measure of impulsivity, by low-attentive but not high-attentive female rats in the 5-choice serial reaction time test (5CSRTT).[2]

References

1. Prickaerts, J., van Goethem, N.P., Chesworth, R., *et al.* EVP-6124, a novel and selective α7 nicotinic acetylcholine receptor partial agonist, improves memory performance by potentiating the acetylcholine response of α7 nicotinic acetylcholine receptors. *Neuropharmacology* **62(2)**, 1099-1110 (2012).
2. Hayward, A., Adamson, L., and Neill, J.C. Partial agonism at the α7 nicotinic acetylcholine receptor improves attention, impulsive action and vigilance in low attentive rats. *Eur. Neuropsychopharmacol.* **27(4)**, 325-335 (2017).

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