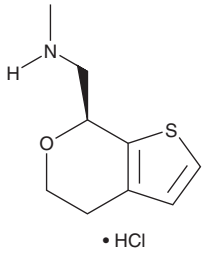
PRODUCT INFORMATION

SEP-363856 (hydrochloride)

Item No. 37399

CAS Registry No.:	1310422-41-3
Formal Name:	4,7-dihydro-N-methyl-5H-thieno[2,3-c]pyran-7-methanamine, monohydrochloride
Synonym:	SEP-856
MF:	$C_9H_{13}NOS \bullet HCl$
FW:	219.7
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

SEP-363856 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the SEP-363856 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. SEP-363856 (hydrochloride) is soluble in organic solvents such as ethanol and DMSO. The solubility of SEP-363856 (hydrochloride) in these solvents is approximately 0.2 and 2 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of SEP-363856 (hydrochloride) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of SEP-363856 (hydrochloride) in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

SEP-363856 is an agonist of trace amine-associated receptor 1 (TAAR1).[1] It increases intracellular cAMP levels in cells expressing TAAR1 (EC_{50} = 0.14 µM). It is also an agonist of the serotonin (5-HT) receptor subtypes 5-HT_{1D} and 5-HT_{1A}, decreasing cAMP levels in cells expressing these receptors (EC_{50}s = 0.262 and 2.3 µM, respectively). SEP-363856 is selective for these receptors over the dopamine D_{2L} receptor (EC_{50}s = 10.44 and 8.02 µM in cAMP and arrestin recruitment assays, respectively), as well as α_{2A}- and α_{2B}-adrenergic, and 5-HT_{1B}, 5-HT_{2A}, 5-HT_{2C}, and 5-HT_7 receptors (EC_{50}s = 6.7->10 µM in functional assays). It reduces hyperactivity induced by phencyclidine (PCP) in mice when administered at 0.3, 1, and 3 mg/kg and reverses PCP-induced impairments in social interaction in rats. SEP-363856 (3, 10, and 30 mg/kg) increases prepulse inhibition of the acoustic startle response in mice. It also decreases the time spent immobile in the forced swim test in mice, indicating antidepressant-like activity.

Reference

1. Dedic, N., Jones, P.G., Hopkins, S.C., *et al.* SEP-363856, a novel psychotropic agent with a unique, non-D_2 receptor mechanism of action. *J. Pharmacol. Exp. Ther.* **371(1)**, 1-14 (2019).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM