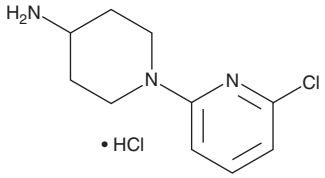
PRODUCT INFORMATION

SR 57227A (hydrochloride)

Item No. 35499

CAS Registry No.:	77145-61-0
Formal Name:	1-(6-chloro-2-pyridinyl)-4-piperidinamine, monohydrochloride
MF:	$C_{10}H_{14}ClN_3 \bullet HCl$
FW:	248.2
Purity:	≥98%
UV/Vis.:	λ_{max}: 253 nm
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

SR 57227A (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the SR 57227A (hydrochloride) in the solvent of choice, which should be purged with an inert gas. SR 57227A (hydrochloride) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of SR 57227A (hydrochloride) in these solvents is approximately 10 and 1 mg/ml, respectively. SR 57227A (hydrochloride) is slightly soluble in ethanol.

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 SR 57227A (hydrochloride) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of SR 57227A (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

SR 57227A is an agonist of the serotonin (5-HT) receptor subtype 5-HT_3.[1] It selectively binds 5-HT_3 receptors (IC_{50} = 2.8 nM) over 5-HT_{1A}, 5-HT_{1B}, 5-HT_{1D}, 5-HT_2, and 5-HT_4 receptors (IC_{50}s = >1,000 nM for all). SR 57227A (20 µM) induces contractions in isolated guinea pig ileum, an effect that can be reversed by the 5-HT_3 antagonist tropisetron (Item No. 21240). Intrastriatal administration of SR 57227A (1 µg/animal) induces contralateral turning behavior in mice. It reduces immobility time in the forced swim test in rats (ED_{50} = 7.6 mg/kg), as well as reduces the number of escape failures in a rat model of learned helplessness and the duration of fighting in a mouse model of isolation-induced aggression.[2]

References

1. Bachy, A., Héaulme, M., Giudice, A., *et al.* SR 57227A: A potent and selective agonist at central and peripheral 5-HT_3 receptors in vitro and in vivo. *Eur. J. Pharmacol.* **237(2-3)**, 299-309 (1993).
2. Poncelet, M., Pério, A., Simiand, J., *et al.* Antidepressant-like effects of SR 57227A, a 5-HT_3 receptor agonist, in rodents. *J. Neural Transm. Gen. Sect.* **102(2)**, 83-90 (1995).

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