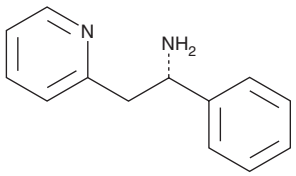
PRODUCT INFORMATION

Lanicemine

Item No. 9002129

CAS Registry No.: 153322-05-5
Formal Name: (αS)-phenyl-2-pyridineethanamine
Synonyms: AZD 6765, AR-R 15896AR
MF: $C_{13}H_{14}N_2$
FW: 198.3
Purity: ≥95%
UV/Vis.: λ_{max}: 263 nm
Supplied as: A neat oil
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Lanicemine is supplied as a neat oil. To change the solvent, simply evaporate the lanicemine under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide purged with an inert gas can be used. The solubility of lanicemine in these solvents is approximately 20, 30, and 5 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. If an organic solvent-free solution of lanicemine is needed, it can be prepared by directly dissolving the neat oil in aqueous buffers. The solubility of lanicemine in PBS, pH 7.2, is approximately 3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Lanicemine is a non-selective, voltage-dependent NMDA channel blocker (IC_{50} = 4-7 µM) that binds to sites within the channel pore with a K_i value of 0.56-2.1 µM.[1] Compared to ketamine (Item No. 11630), lanicemine exhibits a lower propensity to be trapped within the NMDA channel (86% *versus* 54% trapping) following removal and reapplication of glutamate.[1] It has been examined for its potential to produce antidepressant effects without adverse psychotomimetic activity.[1,2]

References

1. Sanacora, G., Smith, M.A., Pathak, S., *et al.* Lanicemine: A low-trapping NMDA channel blocker produces sustained antidepressant efficacy with minimal psychotomimetic adverse effects. *Mol. Psychiatry* **19(9)**, 978-985 (2014).
2. Zarate, C.A., Jr., Mathews, D., Ibrahim, L., *et al.* A randomized trial of a low-trapping nonselective N-methyl-D-aspartate channel blocker in major depression. *Biol. Psychiatry* **74(4)**, 257-264 (2013).

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