
Product Data Sheet

Product Name: Nebracetam hydrochloride

Cat. No.: GC38933

Chemical Properties

Cas. No. 1177279-49-0

SMILES O=C1N(CC2=CC=CC=C2)CC(CN)C1.[H]Cl

Formula $C_{12}H_{17}ClN_2O$ M.Wt 240.73

Solubility Soluble in DMSO Storage Store at -20°C, protect from light, sealed storage, away from moisture

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure

Background

Nebracetam hydrochloride, a nootropic M1-muscarinic agonist, induces a rise of intracellular Ca^{2+} concentration. Nebracetam hydrochloride exhibits an EC_{50} of 1.59 mM for elevating $[Ca^{2+}]_i$ [1].

Nebracetam (10 mg/kg, p.o.) involves not only cholinergic mechanisms but also involves limbic and hippocampal noradrenergic mechanisms [2]. Animal Model: Male Wistar rats weighing 200-250 g [2].

[1]. Kitamura Y, et al. Effects of nebracetam (WEB 1881 FU), a novel nootropic, as a M1-muscarinic agonist. *Jpn J Pharmacol.* 1991 Jan;55(1):177-80. [2]. Iwasaki K, et al. Effect of nebracetam on the disruption of spatial cognition in rats. *Jpn J Pharmacol.* 1992 Feb;58(2):117-26.

Caution: Product has not been fully validated for medical applications. For research use only.

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