
Product Data Sheet

Product Name: (±)-McN 5652

Cat. No.: GC16735

Chemical Properties

Cas. No. 96795-89-0

Chemical Name (6R,10bS)-6-(4-(methylthio)phenyl)-1,2,3,5,6,10b-hexahydropyrrolo[2,1-a]isoquinoline

SMILES CSC1=CC=C(C=C1)[C@H]2CN3[C@H](C4=CC=CC=C24)CCC3Formula C₁₉H₂₁NS

M.Wt 295.44

Solubility <14.77mg/ml in 1eq. HCl; <22.16mg/ml in DMSO Storage Store at -20°C

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**

(±)-McN 5652 is a highly potent inhibitor of serotonin (5-HT, 5-hydroxytryptamine) uptake with a K_i value of approximately 0.6 nM in rat brain synaptosomes in vitro and an ED50 value of approximately 2 mg/kg p.o. ex vivo [1].

5-HT is a monoaminergic neurotransmitter to modulate numerous sensory, behavioural processes and motor in the mammalian nervous system [2]. There are at least three main groups of 5-HT receptor: 5-HT₁, 5-HT₂, and 5-HT₃. Each group is not only structurally but also operationally distinct. Each receptor group has its own distinct transduction system. 5-HT₄ is the more recently identified receptor. It almost represents a fourth 5-HT receptor class [3].

Receptor binding experiments indicated that McN-5652 has a weak affinity for serotonin 5-HT₂ receptor (apparent K_i approximately 200 nM) and a very low affinity for serotonin 5-HT₁ receptor [1].

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

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In vivo, McN-5652 was required in low doses to potentiate the serotonin syndrome in rats. For this serotonin syndrome, the ED50 value was 1.5 mg/kg 2 hr after p.o. dosing. To potentiate head twitches which were induced by L-5-hydroxytryptophan (L-5HTP) in mice, the ED50 value is just 0.4 mg/kg 2 hr after p.o. dosing. That means McN-5652 is of high potency as a serotonin uptake inhibitor [1].

References:

- [1]. Shank RP, Vaught JL, Pelley KA, et al. McN-5652: a highly potent inhibitor of serotonin uptake. *J Pharmacol Exp Ther*, 1988, 247(3):1032-8.
- [2]. Tecott LH, Sun LM, Akana SF, et al. Eating disorder and epilepsy in mice lacking 5-HT_{2c} serotonin receptors. *Nature*, 1995, 374(6522):542-6.
- [3]. Hoyer D, Clarke DE, Fozard JR, et al. International Union of Pharmacology classification of receptors for 5-hydroxytryptamine (Serotonin). *Pharmacol Rev*, 1994, 46(2):157-203.

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