
Product Data Sheet

Product Name: SDZ 220-581 Ammonium salt

Cat. No.: GC37612

Chemical Properties

Cas. No. 179411-94-0

SMILES C1C1=CC=CC=C1C2=CC(C[C@@H](C(O)=O)N)=CC(CP(O)(O)=O)=C2.N

Formula $C_{16}H_{20}ClN_2O_5P$ M.Wt 386.77

Solubility Soluble 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 SDZ 220-581 Ammonium salt

Background

SDZ 220-581 ammonium salt is a potent, competitive antagonist at the NMDA glutamate receptor subtype ($pK_i = 7.7$). IC_{50} Value: Target: NMDA receptor in vitro: Wake-promoting doses of LSN2463359 and LSN2814617 attenuated deficits in performance induced by the competitive NMDA receptor antagonist SDZ 220,581 in two tests of operant behaviour: the variable interval 30 s task and the DMTP task [1]. in vivo: Administration of SDZ 220-581 or CGS 19755 was associated with a robust reduction in PPI, whereas L-701,324, 4-Cl-KYN or MLA failed to alter PPI [2]. With the most active agent, SDZ 220-581, full protection against maximal electroshock seizures (MES) was obtained at oral doses of 10 mg/kg in rats and in mice. The compound had a fast onset (or = 24 hr) of action [3]. Rats were pretreated with clozapine (0 or 5.0 mg/kg) or haloperidol (0 or 0.1 mg/kg), together with SDZ 220-581 (0 or 2.5 mg/kg), and tested. SDZ 220-581 and SDZ EAB-515 decreased PPI without affecting startle magnitude [4].

[1]. Gilmour G, Broad LM, Wafford KA, In vitro characterisation of the novel positive allosteric modulators of the mGlu5 receptor, LSN2463359 and LSN2814617, and their effects on sleep architecture and operant responding in the rat. *Neuropharmacology*. 2013 Jan;64:224-39. [2]. Urwyler S, Campbell E, Fricker G, Biphenyl-derivatives of 2-

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

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amino-7-phosphono-heptanoic acid, a novel class of potent competitive N-methyl-D-aspartate receptor antagonists--II. Pharmacological characterization in vivo. *Neuropharmacology*. 1996 Jun;35(6):655-69. [3]. Bakshi VP, Tricklebank M, Neijt HC, Disruption of prepulse inhibition and increases in locomotor activity by competitive N-methyl-D-aspartate receptor antagonists in rats. *J Pharmacol Exp Ther*. 1999 Feb;288(2):643-52. [4]. Linderholm K, Powell S, Olsson E, Role of the NMDA-receptor in Prepulse Inhibition in the Rat. *Int J Tryptophan Res*. 2010;3:1-12.

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