Product Data Sheet

Product Name: ZSET-845
Cat. No.: GC31261

Chemical Properties

Cas. No.	324077-62-5		
SMILES	O=C1N=C2C=CC=CN2C1(CC3=CC=CC=C3)CC4=CC=CC=C4		
Formula	$C_{21}H_{18}N_2O$	M.Wt	314.38
Solubility	Soluble in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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	ZSET-845		

Protocol

Animal experiment: Rats: The passive avoidance apparatus consists of a small illuminated chamber and a larger dark chamber. The two chambers are separated by a guillotine door. On the first and second days of testing, each rat is placed in the apparatus and left for 3 min to habituate to the apparatus. On the third day, an acquisition trial is performed. Oral administration of ZSET-845 (0.001, 0.01, 0.1 or 1 mg/kg), donepezil or tacrine (0.01, 0.1, 1 or 10 mg/kg) is given 60 min before the acquisition trial. Scopolamine (2 mg/kg) is intraperitoneally (i.p.) injected 20 min before the acquisition trial. Matched control rats received vehicle only[1].

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

References:

[1]. Yamaguchi Y, et al. Ameliorative effects of azaindolizinone derivative ZSET845 on scopolamine-induced deficits in passive avoidance and radial-arm maze learning in the rat. Jpn J Pharmacol. 2001 Nov;87(3):240-4.
[2]. Yamaguchi Y, et al. Antiamnesic effects of azaindolizinone derivative ZSET845 on impaired learning and decreased ChAT activity induced by amyloid-beta 25-35 in the rat. Brain Res. 2002 Aug 2;945(2):259-65.

Background

ZSET-845 is a cognitive enhancer which enhances choline acetyltransferase activity in the hippocampus in the rat.

ZSET-845 has no inhibitory action on AChE activity and enhances choline acetyltransferase (ChAT) activity in NB-1 cells[1].

Product Data Sheet

Treatment with ZSET-845 at the dose of 0.01, 0.1 and 1 mg/kg significantly ameliorates impaired performance caused by scopolamine. Oral administration of ZSET-845 causes an increase in ChAT activity in the hippocampus. In the hippocampus, ZSET-845 (0.01, 0.1 or 1 mg/kg) significantly increases ChAT activity (112%, 113.8% or 108.7%, respectively) compared with matched vehicle-injected control rats[1]. Oral administration of ZSET845 at a dose of 1 or 10 mg/kg ameliorates learning impairment in passive avoidance task and enhanced ChAT activity in the basal forebrain, medial septum and hippocampus, and increases in the number of ChAT-immunoreactive cells in the medial septum in Ab-treated rats to the levels of vehicle-injected control rats[2].

[1]. Yamaguchi Y, et al. Ameliorative effects of azaindolizinone derivative ZSET845 on scopolamine-induced deficits in passive avoidance and radial-arm maze learning in the rat. Jpn J Pharmacol. 2001 Nov;87(3):240-4. [2]. Yamaguchi Y, et al. Antiamnesic effects of azaindolizinone derivative ZSET845 on impaired learning and decreased ChAT activity induced by amyloid-beta 25-35 in the rat. Brain Res. 2002 Aug 2;945(2):259-65.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA