

ZSET1446

Catalog No: tcsc6039



Available Sizes

Size: 1mg

Size: 5mg

Size: 10mg

Size: 25mg

Size: 50mg



Specifications

CAS No:

887603-94-3

Formula:

$C_{15}H_{12}N_2O$

Pathway:

Neuronal Signaling;Membrane Transporter/Ion Channel;Membrane Transporter/Ion Channel

Target:

nAChR;nAChR;Calcium Channel

Purity / Grade:

>98%

Solubility:

DMSO : ≥ 34 mg/mL (143.90 mM)

Alternative Names:

ST-101

Observed Molecular Weight:

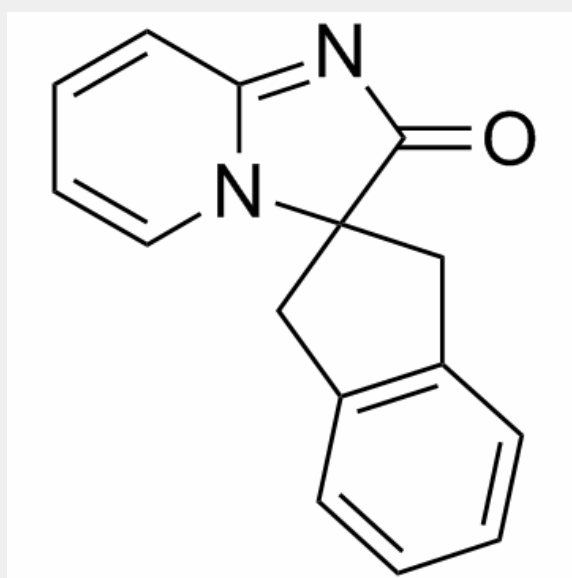
236.27

Product Description

ZSET1446 is a novel cognitive enhancer that significantly improves learning deficits in various types of Alzheimer disease (AD) models.

In Vitro: ZSET1446 (100 pM-10 nM) exerts limited effects on the basal neuronal excitability and synaptic transmission. ZSET1446 potentiates the facilitatory effect of nAChR stimulation on sPSC frequency. ZSET1446 potentiates the increase in sIPSC frequency by local application of nicotine (5 μ M; 2 minutes) without affecting the basal sIPSC frequency at the range of 10 pM to 1 nM^[1].

In Vivo: ZSET1446 enhances object recognition memory in mice and ameliorates cognitive impairment caused by scopolamine in rats. Concomitant administration of subeffective doses of ZSET1446 and memantine significantly ameliorates the cognitive performance in the novel object recognition task in both mice and rats. Moreover, oral administration of ZSET1446 or memantine increases the extracellular level of ACh in the hippocampus as compared with the control. Further, concomitant administration of subeffective doses of ZSET1446 and memantine significantly increases the extracellular level of ACh as compared with the group of ZSET1446 or memantine alone^[2]. ZSET1446 (0.002, 0.01, and 0.1 mg/kg, p.o.) ameliorates cognitive deficits of SAMP8 after 4, 8, 12, and 16 weeks of treatment in a novel object recognition test. ZSET1446 also reduces grading scores of SAMP8 after 16 weeks of treatment. Further, 8-week treatment of ZSET1446 significantly reduces the total number of A β -positive granules in the hippocampus^[3].



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!