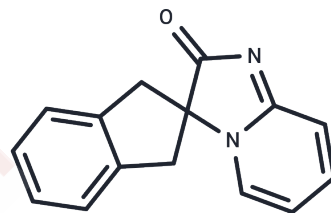


ZSET1446

Chemical Properties

CAS No. : 887603-94-3
 Formula: C₁₅H₁₂N₂O
 Molecular Weight: 236.27
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	ZSET1446 (ST-101) is a T-type calcium channel activator potentially for the treatment of learning deficits in various types of Alzheimer disease (AD) models.
Targets(IC50)	Calcium Channel,AChR
In vivo	ZSET1446 ameliorated cognitive deficits of SAMP8 after 4, 8, 12, and 16 weeks of treatment in a novel object recognition test.?ZSET1446 also reduced grading scores of SAMP8 after 16 weeks of treatment.?Further, 8-week treatment of ZSET1446 significantly reduced the total number of A β -positive granules in the hippocampus.?ZSET1446 shows ameliorating effects on SAMP8 partly due to the suppression of an increase of A β -deposition in the hippocampus[1].
Animal Research	ZSET1446 was administered in drinking water at estimated doses of 0.002, 0.01, and 0.1 mg/kg per day from the age of 8 months mouse.?The SAMP8 at the age of 8 months showed cognitive impairment in a novel object recognition task compared with young SAMP8 at the age of 8 weeks.?Further, grading scores were gradually increased from 9 to 12 months and A β -like immunoreactivity in the hippocampus was increased at the age of 10 months[1].

Solubility Information

Solubility	DMSO: 29 mg/mL (122.74 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (8.46 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.2324 mL	21.1622 mL	42.3245 mL
5 mM	0.8465 mL	4.2324 mL	8.4649 mL
10 mM	0.4232 mL	2.1162 mL	4.2324 mL
50 mM	0.0846 mL	0.4232 mL	0.8465 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Yamaguchi Y, et al. Effects of ZSET1446/ST101 on cognitive deficits and amyloid β deposition in the senescence accelerated prone mouse brain. *J Pharmacol Sci.* 2012;119(2):160-6.

Yamaguchi Y, et al. Combination effects of ZSET1446/ST101 with memantine on cognitive function and extracellular acetylcholine in the hippocampus. *J Pharmacol Sci.* 2013;123(4):347-55. Epub 2013 Nov 29.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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