

## A-582941 dihydrochloride

## Chemical Properties

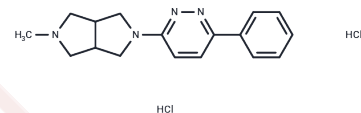
CAS No. : 848591-90-2

Formula: C<sub>17</sub>H<sub>22</sub>Cl<sub>2</sub>N<sub>4</sub>

Molecular Weight: 353.29

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	A-582941 dihydrochloride (A 582941) is a Selective agonist of $\alpha 7$ nAChR partial
Targets(IC50)	5-HT Receptor,AChR
In vivo	A-582941 was found to exhibit high-affinity binding and partial agonism at alpha7 nAChRs. In vitro and in vivo studies indicated that A-582941 activates signaling pathways known to be involved in cognitive function such as ERK1/2 and CREB phosphorylation. A-582941 enhanced cognitive performance in behavioral models that capture domains of working memory, short-term recognition memory, memory consolidation, and sensory gating deficit. A-582941 exhibited a benign secondary pharmacodynamic and tolerability profile as assessed in a battery of assays of cardiovascular, gastrointestinal, and CNS function.

## Solubility Information

Solubility	DMSO: 55 mg/mL (155.68 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	2.8305 mL	14.1527 mL	28.3054 mL
5 mM	0.5661 mL	2.8305 mL	5.6611 mL
10 mM	0.2831 mL	1.4153 mL	2.8305 mL
50 mM	0.0566 mL	0.2831 mL	0.5661 mL

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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

Tietje K R , Anderson D J , Bitner R S , et al. Preclinical Characterization of A-582941: A Novel  $\alpha 7$  Neuronal Nicotinic Receptor Agonist with Broad Spectrum Cognition-Enhancing Properties[J]. Cns Neuroence & Therapeutics, 2010, 14 (1):65-82.

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