

## (R,S)-Anatabine (tartrate) (2743-90-0 free base)

### Chemical Properties

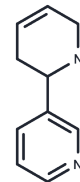
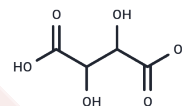
CAS No. :

Formula: C<sub>10</sub>H<sub>12</sub>O<sub>2</sub>·C<sub>4</sub>H<sub>6</sub>O<sub>6</sub>

Molecular Weight: 310.3

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	Anatabine is a minor tobacco alkaloid with a chemical structural similarity to nicotine. Anatabine is produced in plants of the Solanacea family including tobacco, green tomatoes, peppers, and eggplants. Anatabine is an Aβ inhibitor. (R,S)-Anatabine (tartrate) is preferable to (R,S)-Anatabine for certain applications and formulations.
Targets(IC50)	Others
In vitro	In vitro: Anatabine dose-dependently lowered Aβ <sub>1-40</sub> and Aβ <sub>1-42</sub> levels and reduced sAPPβ production without any effects on sAPPα levels. Anatabine lowered Aβ production by mainly impacting the β-cleavage of APP. Anatabine lowered NFκB activation. Anatabine inhibited BACE-1 transcription and reduced BACE-1 protein levels in human neuronal-like SHSY-5Y cells. (R,S)-Anatabine also dose-dependently inhibits NF-κB activation [1].
In vivo	In vivo: In a transgenic mouse model with AD, treatment with anatabine for 4 days remarkably lowered brain soluble Aβ <sub>1-40</sub> and Aβ <sub>1-42</sub> levels [1].

### Solubility Information

Solubility	DMSO: 20 mg/mL (64.45 mM), Sonication is recommended. Ethanol: ≤1 mg/mL, ( < 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	3.2227 mL	16.1134 mL	32.2269 mL
5 mM	0.6445 mL	3.2227 mL	6.4454 mL
10 mM	0.3223 mL	1.6113 mL	3.2227 mL
50 mM	0.0645 mL	0.3223 mL	0.6445 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.

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