

## Anabasine

## Chemical Properties

CAS No. :	494-52-0
Formula:	C10H14N2
Molecular Weight:	162.232
Storage:	Keep away from direct sunlight Pure form: -20°C for 3 years   In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>

## Biological Description

Description	Anabasine ((S)-Anabasine) is an alkaloid extracted from tobacco, acting as a full agonist of nicotinic acetylcholine receptors (nAChRs) with insecticidal activity. It depolarizes TE671 cells that endogenously express human myotopic nAChRs.
Targets(IC50)	AChR
In vivo	Anabasine significantly reverses impairment at doses of 0.2 mg/kg ( $p < 0.05$ ) and 2 mg/kg ( $p < 0.025$ ), without any significant effects on response latency when administered alone. However, the 0.06 mg/kg Anabasine dose exacerbates dizocilpine-induced impairment, increasing non-response trials significantly ( $p < 0.05$ ), and none of the Anabasine doses affect choice accuracy on their own [2].

## Solubility Information

Solubility	DMSO: 50.00 mg/mL (308.20 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: 2.00 mg/mL (12.33 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	6.1641 mL	30.8204 mL	61.6409 mL
5 mM	1.2328 mL	6.1641 mL	12.3282 mL
10 mM	0.6164 mL	3.082 mL	6.1641 mL
50 mM	0.1233 mL	0.6164 mL	1.2328 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

Benedict T Green, et al. Actions of piperidine alkaloid teratogens at fetal nicotinic acetylcholine receptors. *Neurotoxicol Teratol.* May-Jun 2010;32(3):383-90.

Levin ED, et al. Effects of tobacco smoke constituents, anabasine and anatabine, on memory and attention in female rats. *J Psychopharmacol.* 2014 Oct;28(10):915-22.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481