

## Product Data Sheet

Product Name: Varenicline

Cat. No.: GC12762

### Chemical Properties

Cas. No. 249296-44-4

Chemical Name (6R)-7,8,9,10-tetrahydro-6H-6,10-methanoazepino[4,5-g]quinoxaline

SMILES [H]C1(C([H])([H])N([H])C2([H])[H]C([H])([H])[C@]2([H])C3=C([H])C4=NC([H])=C([H])N=C4C([H])=C13

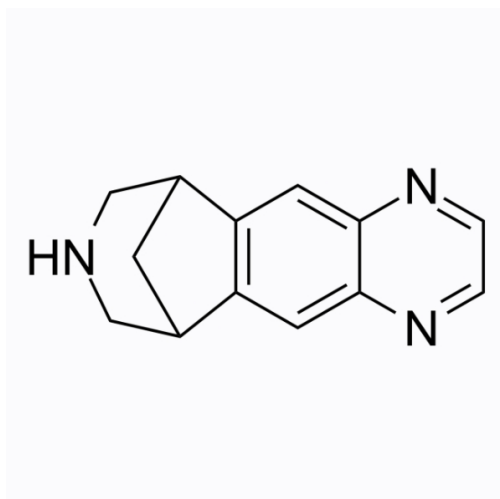
Formula  $C_{13}H_{13}N_3$  M.Wt 211.26

Solubility DMSO : 42mg/mL; Water: 95mg/mL Storage Store at -20°C  
(Need ultrasonic)

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



### Background

Varenicline is a partial agonist/antagonist of  $\alpha 4\beta 2$  nicotinic acetylcholine receptor [1].

Varenicline is a manufactured tartrate salt, it is a partial agonist of  $\alpha 4\beta 2$  nAChRs. The affinity(0.15

**Caution: Product has not been fully validated for medical applications. For research use only.**

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nM) of varenicline with  $\alpha 4\beta 2$  nAChRs is much more higher than with other nAChR subtypes. Through the binding, varenicline prevents nicotine from occupying the receptors and subsequently inhibit nicotine-induced dopaminergic activation. So varenicline is used for smoking cessation. In healthy adult smokers, varenicline does not undergo significant hepatic metabolism and the clearance(>90%) is predominantly renal. It is shown that the amphetamine administration may have decrease the efficacy of varenicline [1].

### References:

[1] Garrison GD, Dugan SE. Varenicline: a first-line treatment option for smoking cessation. Clin Ther. 2009 Mar;31(3):463-91.

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