

Hello Bio, Inc.
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500
F. 609-228-4994

customercare-usa@m2stage.hellobio.com



DATASHEET

Varenicline tartrate

Product overview

Name	Varenicline tartrate
Cat No	HB2070
Biological action	Agonist
Purity	>99%
Description	Selective $\alpha 4\beta 2$ nAChR partial agonist; orally active

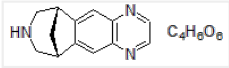
Biological Data

Biological description	Subtype-selective $\alpha 4\beta 2$ nicotinic receptor partial agonist (K_i values are 0.06, 240, 322 and 3540 nM for $\alpha 4\beta 2$, $\alpha 3\beta 4$, $\alpha 7$, $\alpha 1\beta \gamma \delta$ receptors respectively). Also activates PSAM ⁴ -5HT ₃ and PSAM ⁴ -GlyR (EC_{50} values are 4 nM and 1.6 nM respectively) chimeric ion channels to silence neurons. Stimulates dopamine release. Orally active. Shows excellent brain penetration.
-------------------------------	--

Solubility & Handling

Storage instructions	Room temperature
Solubility overview	Soluble in water (100 mM), and in DMSO (50 mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

Chemical Data

Chemical name	7,8,9,10-Tetrahydro-6,10-methano-6H-pyrazino [2,3-h][3] benzazepine tartrate
Molecular Weight	361.37
Chemical structure	 <chem>C13H13N3.C4H6O6</chem>
Molecular Formula	<chem>C13H13N3.C4H6O6</chem>
CAS Number	375815-87-5
PubChem identifier	9906942
SMILES	<chem>C1C2CNCC1C3=CC4=NC=CN=C4C=C23.[C@@H]([C@H](C(=O)O)O)(C(=O)O)O</chem>
InChi	InChI=1S/C13H13N3.C4H6O6/c1-2-16-13-5-11-9-3-8(6-14-7-9)10(11)4-12(13)15-1;5-1(3(7)8)2(6)4(9)10/h1-2,4-5,8-9,14H,3,6-7H2;1-2,5-6H,(H,7,8)(H,9,10)/t;1-,2-/m.1/s1
InChiKey	JQSHBVHOMNKWFT-DTORHVGOSA-N
MDL number	MFCD08460603
Appearance	White solid

References

Ultrapotent chemogenetics for research and potential clinical applications

Magnus CJ *et al* (2019) Science 364

PubMedID 30872534

Pharmacological profile of the alpha4beta2 nicotinic acetylcholine receptor partial agonist varenicline, an effective smoking cessation aid

Rollema H *et al* (2007) Neuropharmacology 52(3)

PubMedID 17157884

Varenicline is a partial agonist at alpha4beta2 and a full agonist at alpha7 neuronal nicotinic receptors.

Mihalak et al (2006) Mol Pharmacol. 70(3)

PubMedID 16766716
