

## **Product** Data Sheet

# Dianicline dihydrochloride

Cat. No.:HY-110241CAS No.:292634-27-6Molecular Formula: $C_{13}H_{18}Cl_2N_2O$ Molecular Weight:289.2

Target: nAChR

Pathway: Membrane Transporter/Ion Channel; Neuronal Signaling

Storage: 4°C, sealed storage, away from moisture

\* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

### **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 25 mg/mL (86.45 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	3.4578 mL	17.2891 mL	34.5781 mL
	5 mM	0.6916 mL	3.4578 mL	6.9156 mL
	10 mM	0.3458 mL	1.7289 mL	3.4578 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (8.64 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (8.64 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (8.64 mM); Clear solution

#### **BIOLOGICAL ACTIVITY**

Description

Dianicline dihydrochloride is a  $\alpha 4\beta 2$  nicotinic acetylcholine receptor partial agonist, a class of agents that includes varenicline and cytisine for smoking cessation. Dianicline dihydrochloride increases cessation rates in a dose-dependent manner<sup>[1]</sup>.

#### **REFERENCES**

 $[1]. \ Tonstad \ S, et \ al. \ Dianic line, a \ novel \ \alpha4\beta2 \ nicotinic \ acetylcholine \ receptor \ partial \ agonist, for \ smoking \ cessation: a \ randomized \ placebo-controlled \ clinical \ trial. \ Nicotine$ 

Tob Res. 2011 Jan;13(1):1-6.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$ 

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