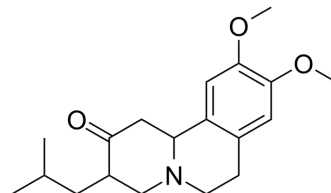


## Tetrabenazine Racemate

<b>Cat. No.:</b>	HY-B0590A		
<b>CAS No.:</b>	718635-93-9		
<b>Molecular Formula:</b>	C <sub>19</sub> H <sub>27</sub> NO <sub>3</sub>		
<b>Molecular Weight:</b>	317.42		
<b>Target:</b>	Monoamine Transporter		
<b>Pathway:</b>	Membrane Transporter/Ion Channel		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 50 mg/mL (157.52 mM; Need ultrasonic)

Concentration	Solvent	Mass	1 mg			5 mg			10 mg		
			Concentration			Concentration			Concentration		
1 mM			3.1504 mL			15.7520 mL			31.5040 mL		
5 mM			0.6301 mL			3.1504 mL			6.3008 mL		
10 mM			0.3150 mL			1.5752 mL			3.1504 mL		

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

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.5 mg/mL (7.88 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: 2.5 mg/mL (7.88 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.5 mg/mL (7.88 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Tetrabenazine Racemate (Ro 1-9569 Racemate) is a selective and reversible inhibitor of vesicular monoamine transporter-2 (VMAT-2). (1) The reference for administration is 0.25-0.75 mg/kg IP(2) Injections of tetrabenazine into accumbens core also reduced FR5 lever pressing and increased chow intake. (3) Tetrabenazine (Racemate) reduced extracellular DA and altered DARPP-32 signaling in both substance-P- and enkephalin-containing accumbens neurons. (4) Tetrabenazine (Racemate) inhibits locomotor activity and produces hypothermia upon systemic administration in rats and mice.

---

## REFERENCES

---

- [1]. Nunes EJ et al. Effort-related motivational effects of the VMAT-2 inhibitor tetrabenazine: implications for animal models of the motivational symptoms of depression. *J Neurosci*. 2013 Dec 4;33(49):19120-30.
- [2]. Podurgiel SJ et al. The vesicular monoamine transporter (VMAT-2) inhibitor tetrabenazine induces tremulous jaw movements in rodents: implications for pharmacological models of parkinsonian tremor. *Neuroscience*. 2013 Oct 10;250:507-19.
- [3]. Reches A et al. Tetrabenazine, an amine-depleting drug, also blocks dopamine receptors in rat brain. *J Pharmacol Exp Ther*. 1983 Jun;225(3):515-21.
- 

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA