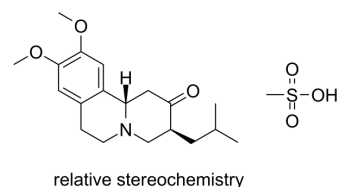


## Tetrabenazine mesylate

Cat. No.:	HY-B0590E
CAS No.:	804-53-5
Molecular Formula:	C <sub>20</sub> H <sub>31</sub> NO <sub>6</sub> S
Molecular Weight:	413.53
Target:	Monoamine Transporter
Pathway:	Membrane Transporter/Ion Channel
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

Description	Tetrabenazine (Ro 1-9569) mesylate is a reversible inhibitor of the vesicular monoamine transporter VMAT2 with the K <sub>d</sub> value of 1.34 nM. Tetrabenazine mesylate can be used for research on diseases related to hyperactive movement disorders such as Huntington's disease <sup>[1][2][3]</sup> .								
In Vivo	<p>Tetrabenazine mesylate (subcutaneous injection, 1-10 mg/kg, once) can reduce the aggressive behavior in a dose-dependent manner and the levels of neurotransmitter molecules NE, DA and 5-HT in adult male mice<sup>[1]</sup>.</p> <p>Tetrabenazine mesylate (intraperitoneal injection, 0-2 mg/kg, once) has selective effects on movement which can significantly attenuate morphine-induced hypermobility but oral tremors and stereotyped behaviors in male ICR mice<sup>[2]</sup>.</p> <p>Tetrabenazine mesylate (intraperitoneal injection, 0.25-2 mg/kg, once a week) increases tremulous jaw movement (TJM) in a dose-dependent manner in adult male Sprague-Dawley rat<sup>[3]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>								
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Dosage:	0.25-2 mg/kg
Administration:	Intraperitoneal injection; once a week
Result:	Induced tremulous jaw movement (TJM) significantly at the concentration of 2 mg/kg and more motor impairments with higher doses such as 3-4 mg/kg.

## REFERENCES

- [1]. J C Shih, et al. Ketanserin and tetrabenazine abolish aggression in mice lacking monoamine oxidase A. *Brain Res.* 1999 Jul 24;835(2):104-12.
- [2]. Nobue Kitanaka, et al. Tetrabenazine, a vesicular monoamine transporter-2 inhibitor, attenuates morphine-induced hyperlocomotion in mice through alteration of dopamine and 5-hydroxytryptamine turnover in the cerebral cortex. *Pharmacol Biochem Behav.* 2018 Sep;172:9-16. doi: 10.1016/j.pbb.2018.07.002. Epub 2018 Jul 12.
- [3]. S J Podurgiel, 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. doi: 10.1016/j.neuroscience.2013.07.008. Epub 2013 Jul 15.

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

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