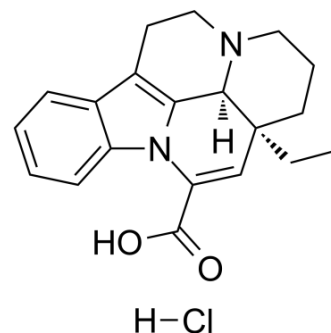


## Apovincaminic acid hydrochloride salt

<b>Cat. No.:</b>	HY-133813A		
<b>CAS No.:</b>	72296-47-0		
<b>Molecular Formula:</b>	C <sub>20</sub> H <sub>23</sub> ClN <sub>2</sub> O <sub>2</sub>		
<b>Molecular Weight:</b>	358.86		
<b>Target:</b>	Drug Metabolite		
<b>Pathway:</b>	Metabolic Enzyme/Protease		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### BIOLOGICAL ACTIVITY

<b>Description</b>	Apovincaminic acid hydrochloride salt is an orally active and brain-penetrant main active metabolite of Vinpocetine (VP). Apovincaminic acid hydrochloride salt exerts a neuroprotective type of action <sup>[1][2]</sup> .								
<b>In Vivo</b>	<p>Apovincaminic acid (10 mg/kg; i.p. twice daily for 4 days) effectively attenuates the behavioral deficits, and significantly decreases lesion size and the region of microglia activation<sup>[1]</sup>.</p> <p>Apovincaminic acid (10 mg/kg; p.o.) is absorbed 50% of the dose comparing with i.v. administration in rats<sup>[2]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Animal Model:</td> <td>Male Harlan/Wistar rats (300-400 g) are injected NMDA<sup>[1]</sup></td> </tr> <tr> <td>Dosage:</td> <td>10 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>I.p. twice daily for 4 days</td> </tr> <tr> <td>Result:</td> <td>Attenuated the attention deficit effectively. Prevented the learning and memory impairment in the spontaneous alternation and Morris water maze tests. significantly reduced lesion size microglia activation.</td> </tr> </table>	Animal Model:	Male Harlan/Wistar rats (300-400 g) are injected NMDA <sup>[1]</sup>	Dosage:	10 mg/kg	Administration:	I.p. twice daily for 4 days	Result:	Attenuated the attention deficit effectively. Prevented the learning and memory impairment in the spontaneous alternation and Morris water maze tests. significantly reduced lesion size microglia activation.
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### REFERENCES

- [1]. Nyakas C, et, al. Neuroprotective effects of vinpocetine and its major metabolite cis-apovincaminic acid on NMDA-induced neurotoxicity in a rat entorhinal cortex lesion model. *CNS Neurosci Ther.* Summer 2009;15(2):89-99.
- [2]. Pudleiner P, et, al. Study on the absorption of vinpocetine and apovincaminic acid. *Eur J Drug Metab Pharmacokinet.* Oct-Dec 1993;18(4):317-21.
- [3]. Wang M, et, al. Simultaneous Determination of Vinpocetine and its Major Active Metabolite Apovincaminic Acid in Rats by UPLC-MS/MS and its Application to the Brain Tissue Distribution Study. *J Chromatogr Sci.* 2018 Mar 1;56(3):225-232.

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

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