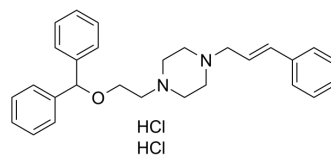


## GBR 12783 dihydrochloride

<b>Cat. No.:</b>	HY-100968
<b>CAS No.:</b>	67469-75-4
<b>Molecular Formula:</b>	C <sub>28</sub> H <sub>34</sub> Cl <sub>2</sub> N <sub>2</sub> O
<b>Molecular Weight:</b>	485.49
<b>Target:</b>	Dopamine Receptor
<b>Pathway:</b>	GPCR/G Protein; Neuronal Signaling
<b>Storage:</b>	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



### BIOLOGICAL ACTIVITY

<b>Description</b>	GBR 12783 dihydrochloride is a specific, potent and selective dopamine uptake inhibitor that inhibits the [ <sup>3</sup> H]dopamine uptake by rat and mice striatal synaptosomes with IC <sub>50</sub> s of 1.8 nM and 1.2 nM, respectively. GBR 12783 dihydrochloride can improve memory performance and increase hippocampal acetylcholine release in rats <sup>[1][2]</sup> .								
<b>In Vivo</b>	<p>GBR 12783 (10 mg/kg; intraperitoneal injection; for 100 minutes; male Sprague-Dawley rats) treatment reinforces specifically dopamine transmission only at synapses instantaneously active, increases hippocampal ACh release and improves memory performance in a passive avoidance task<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>Male Sprague-Dawley rats (180-200 g)<sup>[1]</sup></td> </tr> <tr> <td>Dosage:</td> <td>10 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>Intraperitoneal injection; for 100 minutes</td> </tr> <tr> <td>Result:</td> <td>For a moderate electric shock intensity (0.4 mA), improved retention performance, increased hippocampal acetylcholine release in vivo.</td> </tr> </table>	Animal Model:	Male Sprague-Dawley rats (180-200 g) <sup>[1]</sup>	Dosage:	10 mg/kg	Administration:	Intraperitoneal injection; for 100 minutes	Result:	For a moderate electric shock intensity (0.4 mA), improved retention performance, increased hippocampal acetylcholine release in vivo.
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### REFERENCES

- [1]. Nail-Boucherie K, et al. The specific dopamine uptake inhibitor GBR 12783 improves learning of inhibitory avoidance and increases hippocampal acetylcholine release. *Brain Res Cogn Brain Res*. 1998 Oct;7(2):203-5.
- [2]. Bonnet JJ, et al. GBR 12783, a potent and selective inhibitor of dopamine uptake: biochemical studies in vivo and ex vivo. *Eur J Pharmacol*. 1986 Feb 18;121(2):199-209.

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

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