# Data Sheet (Cat.No.T19337)



## GBR 12783 dihydrochloride

#### **Chemical Properties**

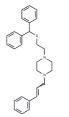
CAS No.: 67469-75-4

Formula: C28H34Cl2N2O

Molecular Weight: 485.49

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



## **Biological Description**

| Description   | GBR 12783 dihydrochloride (GBR12783 2HCl) is a specific, potent and selective dopamine uptake inhibitor. GBR 12783 dihydrochloride inhibits the [3H]dopamine uptake by rat and mice striatal synaptosomes with IC50s of 1.8 nM and 1.2 nM, respectively.GBR 12783 dihydrochloride can improve memory performance and increase hippocampal acetylcholine release in rats. |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Targets(IC50) | Others                                                                                                                                                                                                                                                                                                                                                                   |
| In vivo       | 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[1].                                                                            |

## **Solubility Information**

| Solubility | DMSO: 45 mg/mL (92.69 mM), Sonication is recommended.           |  |
|------------|-----------------------------------------------------------------|--|
|            | (< 1 mg/ml refers to the product slightly soluble or insoluble) |  |

#### **Preparing Stock Solutions**

|       | 1mg       | 5mg        | 10mg       |
|-------|-----------|------------|------------|
| 1 mM  | 2.0598 mL | 10.2989 mL | 20.5977 mL |
| 5 mM  | 0.412 mL  | 2.0598 mL  | 4.1195 mL  |
| 10 mM | 0.206 mL  | 1.0299 mL  | 2.0598 mL  |
| 50 mM | 0.0412 mL | 0.206 mL   | 0.412 mL   |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

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#### Reference

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. 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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