

## Certificate of Analysis

**Product Name:** GBR 12935 dihydrochloride

**Catalog No.:** 0514

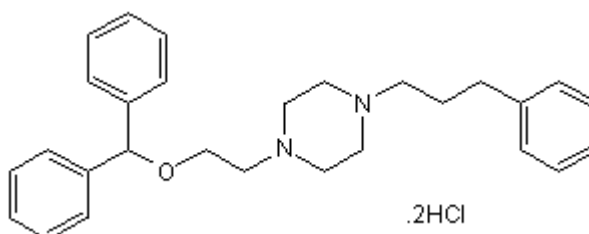
**Batch No.:** 3

CAS Number: 67469-81-2

IUPAC Name: 1-(2-Diphenylmethoxyethyl)-4-(3-phenylpropyl)piperazine dihydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>28</sub>H<sub>34</sub>N<sub>2</sub>O.2HCl  
**Batch Molecular Weight:** 487.51  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 5 mM  
**Storage:** Desiccate at -20°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.6 (Dichloromethane:Ethanol:Ammonia soln. [95:5])  
**Melting Point:** Between 218 - 220°C  
**<sup>1</sup>H NMR:** Consistent with structure  
**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	68.98	7.44	5.75
Found	68.84	7.44	5.7

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Description:**

Potent and selective inhibitor of dopamine uptake ( $K_D = 5.5$  nM in rat striatal membranes).

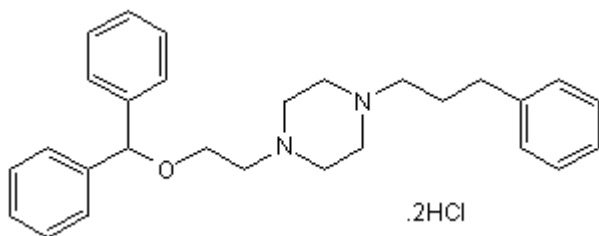
**Physical and Chemical Properties:**

Batch Molecular Formula:  $C_{28}H_{34}N_2O \cdot 2HCl$

Batch Molecular Weight: 487.51

Physical Appearance: White solid

**Batch Molecular Structure:**



**Storage:** Desiccate at  $-20^{\circ}C$

**Solubility & Usage Info:**

DMSO to 5 mM

CAUTION - This product is hygroscopic and we recommend that it is desiccated upon arrival. Solutions should be made up as soon as the vial is opened.

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a  $45-60^{\circ}C$  water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at  $-20^{\circ}C$  or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Andersen et al** (1987) Biochemical and pharmacological characterization of [ $^3H$ ]GBR 12935 binding *in vitro* to rat striatal membranes: labelling of the dopamine uptake complex. *J.Neurochem.* **48** 1887. PMID: 2952763.

**Reith et al** (1992) Evidence for mutually exclusive binding of cocaine, BTCP, GBR 12935, and dopamine to the dopamine transporter. *Eur.J.Pharmacol.* **227** 417. PMID: 1446712.

**Reith et al** (1994) GBR 12909 and 12935 block dopamine uptake into brain synaptic vesicles as well as nerve endings. *Eur.J.Pharmacol.* **253** 175. PMID: 8013544.

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**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors

Tel: +1 612 379 2956