Product Name: GBR 12909 dihydrochloride
CAS Number: 67469-78-7
IUPAC Name: 1-[2-[Bis-(4-fluorophenyl)methoxy]ethyl]-4-(3-phenylpropyl)piperazine dihydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

   **Batch Molecular Formula:** $\text{C}_{28}\text{H}_{32}\text{F}_2\text{N}_2\text{O}.2\text{HCl}$
   **Batch Molecular Weight:** 523.49
   **Physical Appearance:** White solid
   **Solubility:** water to 5 mM with gentle warming
   DMSO to 50 mM
   **Storage:** Desiccate at RT
   **Batch Molecular Structure:**

   ![Molecular Structure]

2. ANALYTICAL DATA

   **TLC:** $R_f = 0.81$ (Chloroform:Methanol [9:1])
   **HPLC:** Shows 100% purity
   **$^1$H NMR:** Consistent with structure
   **Mass Spectrum:** Consistent with structure
   **Microanalysis:**

<table>
<thead>
<tr>
<th>Element</th>
<th>Theoretical</th>
<th>Found</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon</td>
<td>64.24</td>
<td>64.06</td>
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<tr>
<td>Hydrogen</td>
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<td>6.53</td>
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<tr>
<td>Nitrogen</td>
<td>5.35</td>
<td>5.4</td>
</tr>
</tbody>
</table>

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use
Product Name: GBR 12909 dihydrochloride
Catalog No.: 0421 Batch No.: 5
CAS Number: 67469-78-7
IUPAC Name: 1-[2-[2-(4-fluorophenyl)methoxy]ethyl]-4-(3-phenylpropyl)piperazine dihydrochloride

Description:
Potent, competitive inhibitor of dopamine uptake (Kᵢ = 1 nM for inhibition of striatal dopamine uptake). Has > 100-fold lower affinity for the noradrenaline and 5-HT uptake carriers. Also a potent sigma ligand (IC₅₀ = 48 nM). Centrally active following systemic administration.

Physical and Chemical Properties:
Batch Molecular Formula: C₃₂H₂₆F₂N₄O₂·2HCl
Batch Molecular Weight: 523.49
Physical Appearance: White solid
Minimum Purity: >98%

Batch Molecular Structure:

Storage: Desiccate at RT

Solubility & Usage Info:
water to 5 mM with gentle warming
DMSO to 50 mM

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°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°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

