

## Certificate of Analysis

**Product Name:** Org 25543 hydrochloride

**Catalog No.:** 4782

**Batch No.:** 1

CAS Number: 495076-64-7

IUPAC Name: *N*-[[1-(Dimethylamino)cyclopentyl]methyl]-3,5-dimethoxy-4-(phenylmethoxy)benzamide hydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>24</sub>H<sub>32</sub>N<sub>2</sub>O<sub>4</sub>·HCl·¼H<sub>2</sub>O

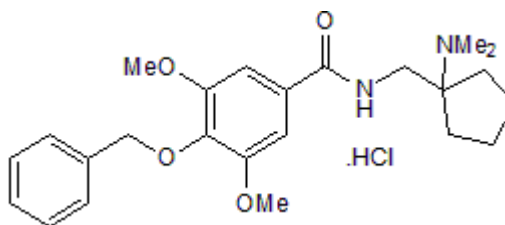
**Batch Molecular Weight:** 453.48

**Physical Appearance:** White solid

**Solubility:**  
water to 20 mM  
DMSO to 100 mM  
ethanol to 20 mM

**Storage:** Desiccate at RT

**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 99.4% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

Carbon Hydrogen Nitrogen

Theoretical 63.57 7.45 6.18

Found 63.31 7.43 6.2

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

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**Description:**

Potent and selective glycine transporter type 2 (GlyT2) inhibitor (IC<sub>50</sub> = 16 nM for hGlyT2). Displays no activity at GlyT1 or 56 other common biological targets (≥ 100 μM), in a glycine uptake assay in CHO cells. Ameliorates mechanical allodynia after partial sciatic nerve ligation injury in mice.

**Physical and Chemical Properties:**

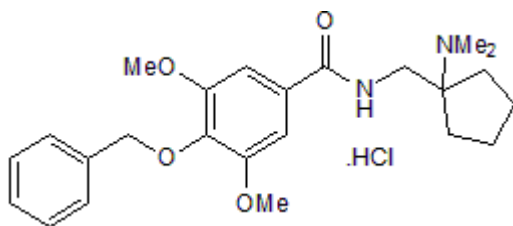
Batch Molecular Formula: C<sub>24</sub>H<sub>32</sub>N<sub>2</sub>O<sub>4</sub>·HCl·¼H<sub>2</sub>O

Batch Molecular Weight: 453.48

Physical Appearance: White solid

**Minimum Purity:** >99%

**Batch Molecular Structure:**



**Storage:** Desiccate at RT

**Solubility & Usage Info:**

water to 20 mM  
DMSO to 100 mM  
ethanol to 20 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:**

**Caulfield et al** (2001) The first potent and selective inhibitors of the glycine transporter type 2. *J.Med.Chem.* **44** 2679. PMID: 11495577.

**Morita et al** (2008) Spinal antiallodynia action of glycine transporter inhibitors in neuropathic pain models in mice. *J.Pharmacol.Exp.Ther.* **326** 633. PMID: 18448867.

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