

**Product Name:** Verapamil hydrochloride

**Catalog No.:** 0654

**Batch No.:** 9

CAS Number: 152-11-4

EC Number: 205-800-5

IUPAC Name:  $\alpha$ -[3-[[2-(3,4-Dimethoxyphenyl)ethyl]methylamino]propyl]-3,4-dimethoxy- $\alpha$ -(1-methylethyl)benzeneacetonitrile hydrochloride

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>27</sub>H<sub>38</sub>N<sub>2</sub>O<sub>4</sub>.HCl

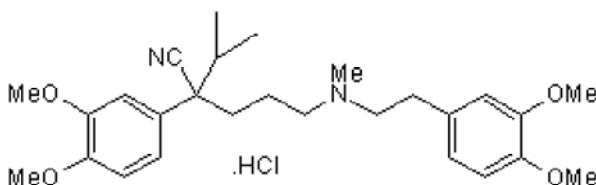
**Batch Molecular Weight:** 491.07

**Physical Appearance:** White solid

**Solubility:** ethanol to 50 mM  
water to 50 mM  
DMSO to 50 mM

**Storage:** Store at RT

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 100% purity

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

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	66.04	8.01	5.7
Found	66.05	8.12	5.69

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

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**Description:**

L-type calcium channel blocker. Vasodilator, adrenergic antagonist. Identified as targeting human host proteins that interact with SARS-CoV-2.

**Physical and Chemical Properties:**

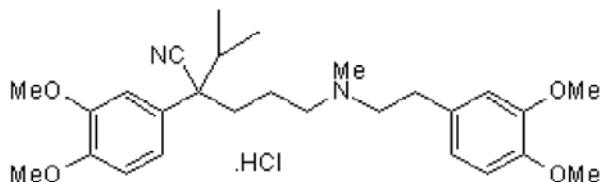
Batch Molecular Formula: C<sub>27</sub>H<sub>38</sub>N<sub>2</sub>O<sub>4</sub>.HCl

Batch Molecular Weight: 491.07

Physical Appearance: White solid

**Minimum Purity:** ≥99%

**Batch Molecular Structure:**



**Storage:** Store at RT

**Solubility & Usage Info:**

ethanol to 50 mM

water to 50 mM

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:**

**Gordon et al** (2020) A SARS-CoV-2 protein interaction map reveals targets for drug repurposing. Nature. PMID: 32353859.

**Fleming et al** (2011) Chemical modulators of autophagy as biological probes and potential therapeutics. Nat.Chem.Biol. **7** 9. PMID: 21164513.

**Ustunes et al** (1996) Effects of vera. on intimal thickening and vascular reactivity in the collared carotid artery of the rabbit. Br.J.Pharmacol. **118** 1681. PMID: 8842432.

**Ishibashi et al** (1995) Block of P-type Ca<sup>2+</sup> channels in freshly dissociated rat cerebellar Purkinje neurons by dilt. and vera. Brain Res. **695** 88. PMID: 8574653.

**Lacinova et al** (1995) Interaction of RO-40-5967 and vera. with the stably expressed  $\alpha_1$ -subunit of the cardiac L-type calcium channel. J.Pharmacol.Exp.Ther. **274** 54. PMID: 7616442.

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