

**Product Name:** Calmidazolium chloride

**Catalog No.:** 2561

**Batch No.:** 3

CAS Number: 57265-65-3

IUPAC Name: 1-[Bis(4-chlorophenyl)methyl]-3-[2-(2,4-dichlorophenyl)-2-(2,4-dichlorobenzyloxy)ethyl]-1*H*-imidazolium chloride

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>31</sub>H<sub>23</sub>Cl<sub>7</sub>N<sub>2</sub>O.¼H<sub>2</sub>O

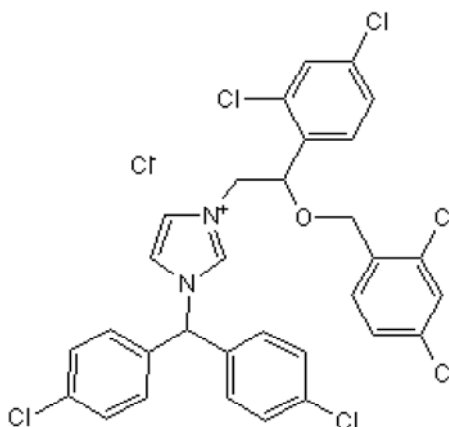
**Batch Molecular Weight:** 692.2

**Physical Appearance:** White solid

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

**Storage:** Store at +4°C

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 95.4% purity

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

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	53.79	3.42	4.05
Found	53.65	3.42	3.91

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**Description:**

Calmodulin antagonist. Inhibits calmodulin-dependent phosphodiesterase and Ca<sup>2+</sup>-transporting ATPase with IC<sub>50</sub> values of 0.15 and 0.35 μM respectively. Also causes elevation of intracellular calcium in HL-60 cells, independent of calmodulin inhibition.

**Physical and Chemical Properties:**

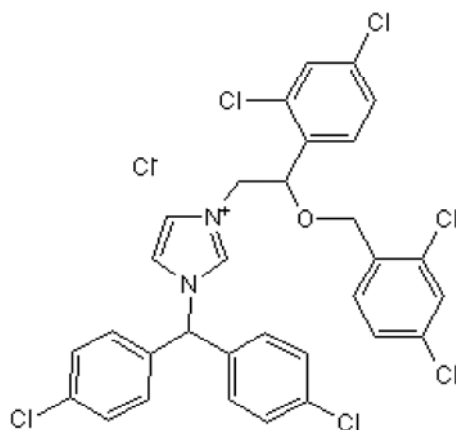
Batch Molecular Formula: C<sub>31</sub>H<sub>23</sub>Cl<sub>7</sub>N<sub>2</sub>O.½H<sub>2</sub>O

Batch Molecular Weight: 692.2

Physical Appearance: White solid

**Minimum Purity:** >95%

**Batch Molecular Structure:**



**Storage:** Store at +4°C

**Solubility & Usage Info:**

DMSO to 100 mM  
ethanol to 100 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:**

**Peppiatt et al** (2004) Calmidazolium and arachidonate activate a calcium entry pathway that is distinct from store-operated calcium influx in HeLa cells. *Biochem.J.* **381** 929. PMID: 15130089.

**Harper and Daly** (2000) Effect of calmidazolium analogs on calcium influx in HL-60 cells. *Biochem.Pharmacol.* **60** 317. PMID: 10856426.

**Gietzen** (1983) Comparison of the calmodulin antagonists compound 48/80 and calmidazolium. *Biochem.J.* **216** 611. PMID: 6141789.

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