

Hello Bio, Inc.
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500
F. 609-228-4994

customercare-usa@m2stage.hellobio.com



DATASHEET

Calmidazolium Chloride

Product overview

Name	Calmidazolium Chloride
Cat No	HB0156
Alternative names	R 24571
Biological action	Antagonist
Purity	>98%
Description	Calmodulin (CaM) antagonist

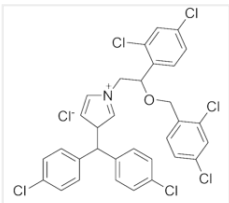
Biological Data

Biological description	Calmodulin (CaM) antagonist. Inhibits calmodulin-dependent phosphodiesterase ($IC_{50} = 0.15 \mu M$). Antagonises Ca^{2+} -transporting ATPase calmodulin-induced activation ($IC_{50} = 0.35 \mu M$). Inhibits adenylyl cyclase, soluble fusion protein, ACIX and ACV-ACII fusion proteins. Blocks L-type calcium channels as well as voltage-dependent Na^+ and K^+ channel currents; increases intracellular calcium. Shows cytotoxic and apoptotic effects.
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Solubility & Handling

Storage instructions	+4 °C
Solubility overview	Soluble in DMSO (100mM) or ethanol (100mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	1-[Bis(4-chlorophenyl)methyl]-3-[2-(2,4-dichlorophenyl)-2-(2,4-dichlorobenzoyloxy)ethyl]-1 <i>H</i> -imidazolium chloride
Molecular Weight	687.7
Chemical structure	
Molecular Formula	$C_{31}H_{23}Cl_7N_2O$
CAS Number	57265-65-3
PubChem identifier	644274
SMILES	<chem>C1=CC(=CC=C1C(C2=CC=C(C=C2)Cl)N3C=C[N+]=(C3)CC(C4=C(C=C(C=C4)Cl)Cl)OCC5=C(C=C(C=C5)Cl)Cl)Cl.[Cl-]</chem>
InChiKey	YGEIMSMISRCBFF-UHFFFAOYSA-M

References

Comparison of the calmodulin antagonists compound 48/80 and calmidazolium.

Gietzen K (1983) Biochem J 216(3)

PubMedID [6141789](#)

Small ligands modulating the activity of mammalian adenylyl cyclases: a novel mode of inhibition by calmidazolium.

Haunsø A *et al* (2003) Mol Pharmacol 63(3)

PubMedID [12606770](#)

Cardiotoxicity of calmidazolium chloride is attributed to calcium aggravation, oxidative and nitrosative stress, and apoptosis.

Kumar S *et al* (2009) Free Radic Biol Med 47(6)

PubMedID [19497364](#)
