

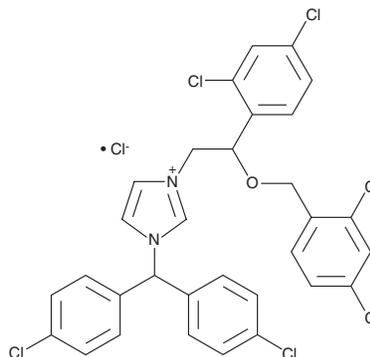
PRODUCT INFORMATION



Calmidazolium (chloride)

Item No. 14442

CAS Registry No.: 57265-65-3
Formal Name: 3-[bis(4-chlorophenyl)methyl]-1-[2-(2,4-dichlorophenyl)-2-[(2,4-dichlorophenyl)methoxy]ethyl]-1H-imidazolium, monochloride
Synonym: R 24571
MF: C₃₁H₂₃Cl₆N₂O • Cl
FW: 687.7
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Calmidazolium (chloride) is supplied as a solid. A stock solution may be made by dissolving the calmidazolium (chloride) in the solvent of choice, which should be purged with an inert gas. Calmidazolium (chloride) is soluble in organic solvents such as ethanol and DMSO. The solubility of calmidazolium (chloride) in these solvents is approximately 100 mM. We do not recommend storing the aqueous solution for more than one day.

Description

Calmidazolium (chloride) is an inhibitor of calmodulin (CaM), inhibiting CaM-dependent phosphodiesterase and CaM-induced activation of erythrocyte calcium-transporting ATPase (IC₅₀ = 0.15 and 0.35 μM, respectively).¹ Calmidazolium also inhibits an array of calcium-transporting ATPases, including those from heart and skeletal muscle (IC₅₀ = 2.1 and 2.9 μM, respectively).¹ It also induces the influx of extracellular calcium through store-operated calcium channels (EC₅₀ = 3 μM).^{2,3}

References

1. Gietzen, K. Comparison of the calmodulin antagonists compound 48/80 and calmidazolium. *Biochem. J.* **216(3)**, 611-616 (1983).
2. Harper, J.L. and Daly, J.W. Effect of calmidazolium analogs on calcium influx in HL-60 cells. *Biochem. Pharmacol.* **60(3)**, 317-324 (2000).
3. Peppiatt, C.M., Holmes, A.M., Seo, J.T., *et al.* Calmidazolium and arachidonate activate a calcium entry pathway that is distinct from store-operated calcium influx in HeLa cells. *Biochem. J.* **381(3)**, 929-939 (2004).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

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