

Product Name: UCL 1684

Catalog No.: 1310

Batch No.: 4

CAS Number: 199934-16-2

IUPAC Name: 6,12,19,20,25,26-Hexahydro-5,27:13,18:21,24-trietheno-11,7-metheno-7*H*-dibenzo [*b,n*] [1,5,12,16] tetraazacyclotricosine-5,13-dium dibromide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₄H₃₀Br₂N₄.H₂O

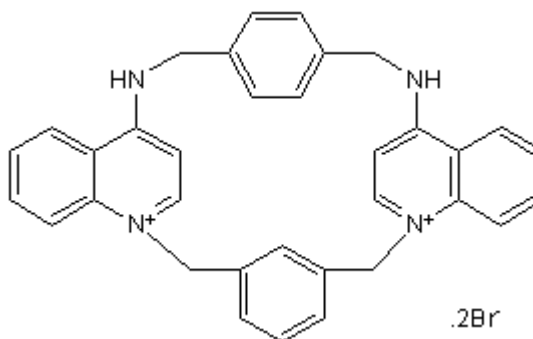
Batch Molecular Weight: 672.46

Physical Appearance: Cream solid

Solubility: DMSO to 10 mM

Storage: Desiccate at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.68 (Pyridine:Acetic acid:Water:Butanol [3:8:11:14])

HPLC: Shows 97.8% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	60.73	4.8	8.33
Found	60.69	4.86	8.4

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Description:

Highly potent, non-peptidic blocker of the apamin-sensitive Ca²⁺-activated K⁺ channel (K_{Ca}2.1) (IC₅₀ = 3 nM in rat sympathetic neurons). Blocks hK_{Ca}2.1 and rK_{Ca}2.2 channels expressed in HEK 293 cells with IC₅₀ values of 762 and 364 pM respectively.

Physical and Chemical Properties:

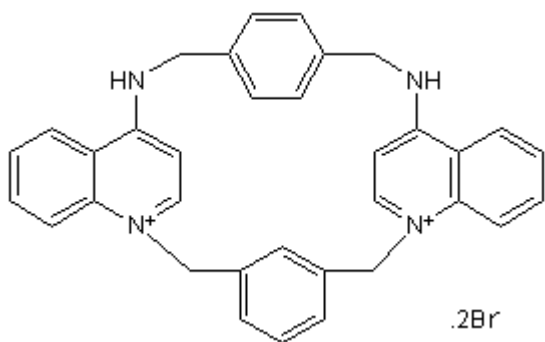
Batch Molecular Formula: C₃₄H₃₀Br₂N₄·H₂O

Batch Molecular Weight: 672.46

Physical Appearance: Cream solid

Minimum Purity: >97%

Batch Molecular Structure:



Storage: Desiccate at RT

Solubility & Usage Info:

DMSO to 10 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:

Campos Rosa et al (2000) Synthesis, molecular modeling, and pharmacological testing of bis-quinolinium cyclophanes: potent, non-peptidic blockers of the apamin-sensitive Ca²⁺-activated K⁺ channel. *J.Med.Chem.* **43** 420. PMID: 10669569.

Malik-Hall et al (2000) Compounds that block intermediate-conductance (IK_{Ca}) and small-conductance (SK_{Ca}) calcium-activated potassium channels. *Br.J.Pharmacol.* **129** 1431. PMID: 10742299.

Strobaek et al (2000) Pharmacological characterization of small-conductance Ca²⁺-activated K⁺ channels stably expressed in HEK 293 cells. *Br.J.Pharmacol.* **129** 991. PMID: 10696100.

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