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Print Date: May 4th 2022

Certificate of Analysis

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Product Name: **UCL 1684** **Catalog No.: 1310** **Batch No.: 5**

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-diium dibromide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{34}H_{30}Br_2N_4.2¼H_2O$

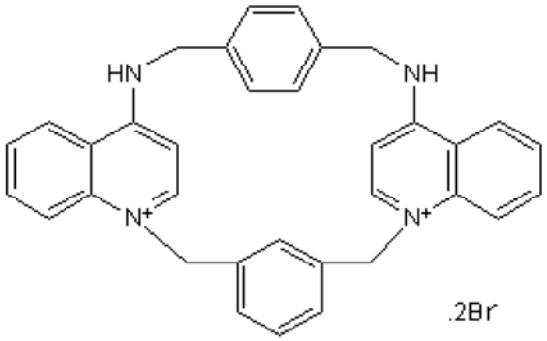
Batch Molecular Weight: 694.97

Physical Appearance: White solid

Solubility: DMSO to 10 mM

Storage: Desiccate at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 98.7% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	58.76	5	8.06
Found	58.34	4.98	7.84

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Product Information

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Description:

UCL 1684 is a highly potent, non-peptidic blocker of the apamin-sensitive Ca^{2+}-activated K^+ channel ($K_{Ca}2.1$) (IC_{50} = 3 nM in rat sympathetic neurons). Blocks $hK_{Ca}2.1$ and $rK_{Ca}2.2$ channels expressed in HEK 293 cells with IC_{50} values of 762 and 364 pM respectively.

Physical and Chemical Properties:

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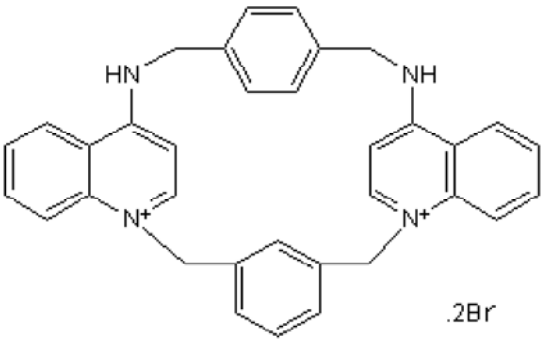
Physical Appearance: White solid

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.

Licensing Information:

Sold with the permission of University College, London

References:

Campos Rosa *et al* (2000) Synthesis, molecular modeling, and pharmacological testing of bis-quinolinium cyclophanes: potent, non-peptidic blockers of the apamin-sensitive Ca^{2+}-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 Ca^{2+}-activated K^+ channels stably expressed in HEK 293 cells. Br.J.Pharmacol. ***129*** 991. PMID: 10696100.

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