

Product Name: VU 590 dihydrochloride

Catalog No.: 3891

Batch No.: 1

CAS Number: 1783987-83-6

IUPAC Name: 7,13-Bis[(4-nitrophenyl)methyl]-1,4,10-trioxo-7,13-diazacyclopentadecane dihydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₄H₃₂N₄O₇·2HCl·2H₂O

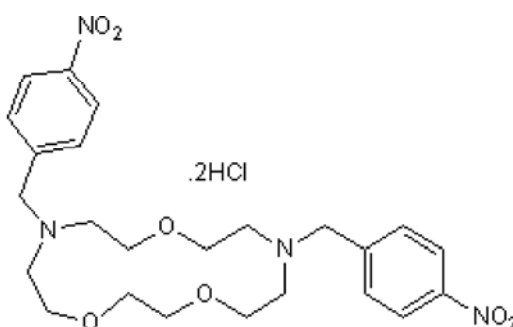
Batch Molecular Weight: 597.49

Physical Appearance: White solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 97% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	48.24	6.41	9.38
Found	48.12	6.74	9.08

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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IUPAC Name: 7,13-Bis[(4-nitrophenyl)methyl]-1,4,10-trioxa-7,13-diazacyclopentadecane dihydrochloride

Description:

Inhibits the renal outer medullary potassium channel ($K_{ir}1.1$, ROMK) ($IC_{50} = 294$ nM). Also inhibits the inward rectifying K^+ channel $K_{ir}7.1$; displays no effect upon $K_{ir}2.1$ or $K_{ir}4.1$. Acts as an intracellular $K_{ir}1.1$ channel pore blocker.

Physical and Chemical Properties:

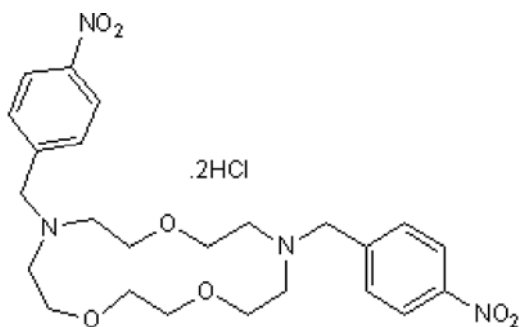
Batch Molecular Formula: $C_{24}H_{32}N_4O_7 \cdot 2HCl \cdot 2H_2O$

Batch Molecular Weight: 597.49

Physical Appearance: White solid

Minimum Purity: >97%

Batch Molecular Structure:



References:

Lewis et al (2009) High-throughput screening reveals a small-molecule inhibitor of the renal outer medullary potassium channel and $K_{ir}7.1$. *Mol.Pharmacol.* **76** 1094. PMID: 19706730.

Storage: Store at $-20^{\circ}C$

Solubility & Usage Info:

DMSO 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 $45-60^{\circ}C$ 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 $-20^{\circ}C$ or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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