

## Certificate of Analysis

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**Product Name:** NPC 15437 dihydrochloride

**Catalog No.:** 1628

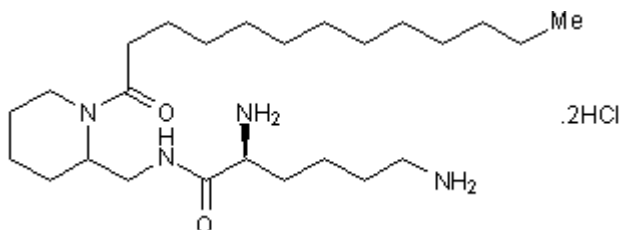
**Batch No.:** 2

CAS Number: 136449-85-9

IUPAC Name: (2S)-2,6-Diamino-N-[[1-(1-oxotridecyl)-2-piperidinyl]methyl]hexanamide dihydrochloride

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>25</sub>H<sub>50</sub>N<sub>4</sub>O<sub>2</sub>·2HCl  
**Batch Molecular Weight:** 511.62  
**Physical Appearance:** White Waxy solid  
**Solubility:** water to 100 mM  
 phosphate buffered saline to 100 mM  
**Storage:** Desiccate at +4°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.85 (Isopropanol:Ammonia solution:Water [6:3:1])  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

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

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**Description:**

Highly selective, competitive and reversible inhibitor of protein kinase C ( $IC_{50} = 19 \text{ mM}$ ); interacts at the regulatory domain of the enzyme. May modulate P-glycoprotein in tumor cells in vitro via inhibition of PKC. Centrally active following systemic administration in vivo.

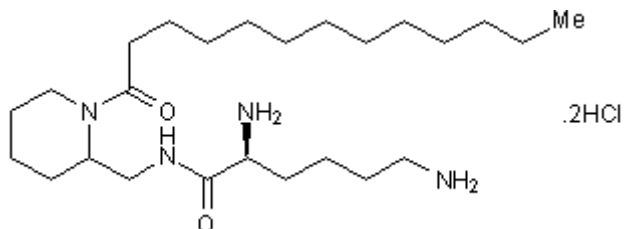
**Physical and Chemical Properties:**

Batch Molecular Formula:  $C_{25}H_{50}N_4O_2 \cdot 2HCl$

Batch Molecular Weight: 511.62

Physical Appearance: White Waxy solid

**Batch Molecular Structure:**



**Storage:** Desiccate at +4°C

**Solubility & Usage Info:**

water to 100 mM

phosphate buffered saline 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°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:**

**Mathis et al (1992)** The selective protein kinase C inhibitor, NPC 15437, induces specific deficits in memory retention in mice. *Eur.J.Pharmacol.* **220** 107. PMID: 1425976.

**Sullivan et al (1992)** 2,6-Diamino-N-[[1-(1-oxotridecyl)-2-piperidinyl]methyl]hexanamide (NPC 15437): a novel inhibitor of protein kinase C interacting at the regulatory domain. *Mol.Pharmacol.* **41** 38. PMID: 1732721.

**Sha et al (1996)** Evaluation of 2,6-diamino-N-[[1-(1-oxotridecyl)-2-piperidinyl]methyl]hexanamide (NPC 15437), a protein kinase C inhibitor, as a modulator of P-glycoprotein-mediated resistance *in vitro*. *Invest.New Drugs* **13** 285. PMID: 8824346.

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