

# PRODUCT INFORMATION



## NPC-15437 (hydrochloride)

Item No. 20212

CAS Registry No.: 141774-20-1

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

MF:  $C_{25}H_{50}N_4O_2 \cdot 2HCl$

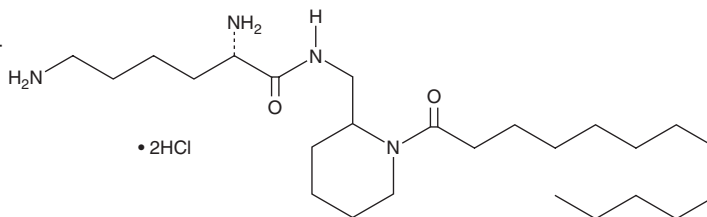
FW: 511.6

Purity:  $\geq 95\%$

Supplied as: A crystalline solid

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

Stability:  $\geq 4$  years



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

### Laboratory Procedures

NPC-15437 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the NPC-15437 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. NPC-15437 (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of NPC-15437 (hydrochloride) in ethanol is approximately 5 mg/ml and approximately 10 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of NPC-15437 (hydrochloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of NPC-15437 (hydrochloride) in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

NPC-15437 is a selective protein kinase C (PKC) inhibitor ( $IC_{50} = 19 \mu M$ ).<sup>1</sup> It competitively inhibits phorbol ester- ( $K_i = 5 \mu M$ ) and phosphatidylserine-induced ( $K_i = 12 \mu M$ ) PKC activity but does not affect the activity of cAMP-dependent or  $Ca^{2+}$ /calmodulin-dependent protein kinases. PKC signaling is involved in learning and memory, and when NPC-15437 was administered after Y maze training (0.1-10 mg/kg i.p.), it led to memory retention deficits in mice.<sup>2</sup>

### References

1. Sullivan, J.P., Connor, J.R., Shearer, B.G., *et al.* 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**(1), 38-44 (1992).
2. Mathis, C., Lehmann, J., and Ungerer, A. The selective protein kinase C inhibitor, NPC 15437, induces specific deficits in memory retention in mice. *Eur. J. Pharmacol.* **220**(1), 107-110 (1992).

#### 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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/03/2022

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897  
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM