

Product Name: NPS 2143 hydrochloride

Catalog No.: 3626

Batch No.: 3

CAS Number: 324523-20-8

IUPAC Name: 2-Chloro-6-[(2R)-3-[[1,1-dimethyl-2-(2-naphthalenyl)ethyl]amino]-2-hydroxypropoxy]benzonitrile hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₄H₂₅ClN₂O₂.HCl.½H₂O

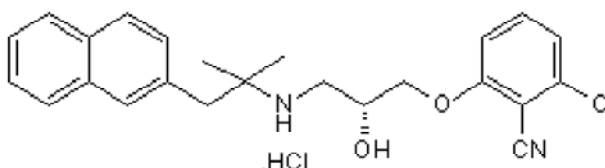
Batch Molecular Weight: 454.39

Physical Appearance: White solid

Solubility: DMSO to 100 mM
ethanol to 10 mM

Storage: Desiccate at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.0% purity

Chiral HPLC: Shows 99.5% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	63.44	5.99	6.17
Found	63.39	5.97	6.19

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Description:

NPS 2143 hydrochloride is a selective Ca²⁺-sensing receptor antagonist. Blocks increases in cytoplasmic Ca²⁺ concentrations elicited by human Ca²⁺ receptors expressed in HEK293 cells (IC₅₀ = 43 nM). Also stimulates parathyroid hormone secretion from bovine parathyroid cells (EC₅₀ = 41 nM). Orally active calcilytic compound.

Physical and Chemical Properties:

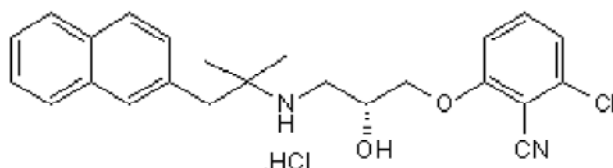
Batch Molecular Formula: C₂₄H₂₅ClN₂O₂.HCl.½H₂O

Batch Molecular Weight: 454.39

Physical Appearance: White solid

Minimum Purity: ≥99%

Batch Molecular Structure:



Storage: Desiccate at RT

Solubility & Usage Info:

DMSO to 100 mM

ethanol 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:

Huang and Breitwieser (2007) Rescue of calcium-sensing receptor mutants by allosteric modulators reveals a conformational checkpoint in receptor biogenesis. *J.Biol.Chem.* **282** 9517. PMID: 17284438.

Nemeth (2002) The search for calcium receptor antagonists (calcilytics). *J.Mol.Endocrinol.* **29** 15. PMID: 12200226.

Nemeth et al (2001) Calcilytic compounds: potent and selective Ca²⁺ receptor antagonists that stimulate secretion of parathyroid hormone. *J.Pharmacol.Exp.Ther.* **299** 323. PMID: 11561095.

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