

Certificate of Analysis

Print Date: Sep 27th 2024

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Batch No.: 1

Catalog No.: 4174

Product Name: Pramipexole dihydrochloride

CAS Number: 104632-25-9

IUPAC Name: (S)-2-Amino-4,5,6,7-tetrahydro-6-(propylamino)benzothiazole dihydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₀H₁₇N₃S.2HCl

Batch Molecular Weight: 284.25 **Physical Appearance:** White solid

Solubility: water to 100 mM

DMSO to 100 mM

Storage: Desiccate at RT

Batch Molecular Structure:

NH₂

2. ANALYTICAL DATA

HPLC: Shows 99.4% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: $[\alpha]_D = -67$ (Concentration = 1, Solvent = Methanol)

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 42.25 6.74 14.78 Found 42.19 6.74 14.64

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Product Information

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IUPAC Name: (S)-2-Amino-4,5,6,7-tetrahydro-6-(propylamino)benzothiazole dihydrochloride

Description:

Pramipexole dihydrochloride is a dopamine receptor agonist exhibiting selectivity for the D_3 receptor (K_i values are 0.5, 3.3, 3.9 and 3.9 nM for D_3 , $D_{2\mathrm{S}}$, $D_{2\mathrm{L}}$ and D_4 receptors respectively). Exhibits negligible affinity for D_1 and D_5 receptors. Displays activity in the treatment of Parkinson's disease.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₀H₁₇N₃S.2HCl

Batch Molecular Weight: 284.25 Physical Appearance: White solid

Minimum Purity: ≥99%

Batch Molecular Structure:

Storage: Desiccate at RT

Solubility & Usage Info:

water to 100 mM 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°C water bath).

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Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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:

Mierau et al (1995) Pramipexole binding and activation of cloned and expressed DA D2, D3 and D4 receptors. Eur.J.Pharmacol. **290** 29. PMID: 7664822.

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