

Certificate of Analysis

Print Date: Oct 8th 2019

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Product Name: CDP 840 hydrochloride Catalog No.: 3936 Batch No.: 2

IUPAC Name: 4-[(2R)-2-[3-(Cyclopentyloxy)-4-methoxyphenyl]-2-phenylethyl]-pyridine hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₅H₂₇NO₂.HCl.½H₂O

Batch Molecular Weight: 414.45

Physical Appearance: Off-white solid
Solubility: DMSO to 100 mM
Storage: Desiccate at RT

Batch Molecular Structure:

2. ANALYTICAL DATA

TLC: $R_f = 0.5$ (Ethyl acetate:Petroleum ether [1:1])

HPLC: Shows 99.4% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: $[\alpha]_D = +39$ (Concentration = 0.48, Solvent = Ethanol)

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 72.45 6.93 3.38 Found 72.23 6.74 3.46



Product Information

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IUPAC Name: 4-[(2R)-2-[3-(Cyclopentyloxy)-4-methoxyphenyl]-2-phenylethyl]-pyridine hydrochloride

Description:

Potent and selective inhibitor of phosphodiesterase (PDE) 4 (IC_{50} = 12 nM for native PDE4). Competitively inhibits all PDE4 isoenzymes (IC_{50} values are 4, 9, 9 and 45 nM for PDE4A, PDE4B, PDE4C and PDE4D human recombinant isoforms expressed in yeast).

Physical and Chemical Properties:

Batch Molecular Formula: $C_{25}H_{27}NO_2.HCI.1/4H_2O$

Batch Molecular Weight: 414.45 Physical Appearance: Off-white solid

Minimum Purity: >98%

Batch Molecular Structure:

Storage: Desiccate at RT

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°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:

Cooper et al (1999) A comparison of the inhibitory activity of PDE4 inhibitors on leukocyte PDE4 activity in vitro and eosinophil trafficking in vivo. Br.J.Pharmacol. 126 1863. PMID: 10372831.

Perry et al (1998) CDP840: a novel inhibitor of PDE-4. Cell Biochem. Biophys. 29 113. PMID: 9631241.

Hughes *et al* (1996) The inhibition of antigen-induced eosinophilia and bronchoconstriction by CDP840, a novel stereo-selective inhibitor of phosphodiesterase type 4. Br.J.Pharmacol. *118* 1183. PMID: 8818342.

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