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Certificate of Analysis

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Batch No.: 15

Catalog No.: 0684

Print Date: Feb 23rd 2024

Product Name: (±)-Epibatidine

CAS Number: 148152-66-3 IUPAC Name: (±)-exo-2-(6-(

(±)-exo-2-(6-Chloro-3-pyridinyl)-7-azabicyclo[2.2.1.]heptane

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: Batch Molecular Weight: Physical Appearance: Solubility: C₁₁H₁₃ClN₂ 208.69 Off White solid water to 5 mM ethanol to 100 mM DMSO to 100 mM Desiccate at +4°C

Storage: Batch Molecular Structure:

2. ANALYTICAL DATA

TLC: HPLC: ¹H NMR: Mass Spectrum:

R_f = 0.44 (Dichloromethane:Methanol:Ammonia soln. [90:9:1]) Shows 99.1% purity Consistent with structure Consistent with structure

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

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Product Information

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IUPAC Name: (±)-exo-2-(6-Chloro-3-pyridinyl)-7-azabicyclo[2.2.1.]heptane

Description:

(±)-Epibatidine is a high affinity nicotinic agonist (K_i values are 0.02 and 233 nM for $\alpha 4\beta 2$ and $\alpha 7$ nicotinic receptors respectively). Analgesic.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₁H₁₃ClN₂ Batch Molecular Weight: 208.69 Physical Appearance: Off White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Desiccate at +4°C

Solubility & Usage Info:

water to 5 mM ethanol to 100 mM DMSO to 100 mM

POTENT NICOTINIC AGONIST - TREAT AS EXTREMELY POISONOUS. This product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

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. *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.

Licensing Information:

Sold under license from the NIH, US Patent 5,314,899

References:

Sharples et al (2000) UB-165 implicates α4β2 nAChR in striatal DA release. J.Neurosci. 20 2783. PMID: 10751429.

Marks et al (1998) Differential agonist inhibition identifies multiple epibatidine binidng sites in mouse brain. J.Pharmacol.Exp.Ther. 285 377. PMID: 9536034.

Gerzarich et al (1995) Comparative pharmacology of epibatidine; a potent agonist for neuronal nicotinic acetylcholine receptors. Mol.Pharmacol. 48 774. PMID: 7476906.

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15