

Certificate of Analysis

Print Date: Apr 7th 2022

Batch No.: 9

www.tocris.com

Catalog No.: 3576

Product Name: (±)-5'-Chloro-5'-deoxy-ENBA

CAS Number: 103626-26-2

IUPAC Name: N-Bicyclo[2.2.1]hept-2-yl-5'-chloro-5'-deoxyadenosine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{17}H_{22}CIN_5O_3.\frac{1}{4}H_2O$

Batch Molecular Weight: 384.34

Physical Appearance: White solid

Solubility: DMSO to 100 mM

ethanol to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 99.9% purity

¹H NMR: Consistent with structure Mass Spectrum: Consistent with structure

Microanalysis:

Carbon Hydrogen Nitrogen

Theoretical 53.13 5.9 18.22 Found 52.79 5.78 18.26



Product Information

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IUPAC Name: N-Bicyclo[2.2.1]hept-2-yl-5'-chloro-5'-deoxyadenosine

Description:

(±)-5'-Chloro-5'-deoxy-ENBA is a highly selective adenosine A_1 receptor agonist (K_i values are 0.51, 1290, 1340 and 2740 nM at A_1 , A_3 , A_{2A} and A_{2B} receptors respectively). Reverses formalininduced nocifensive behavior in mice; antinociceptive.

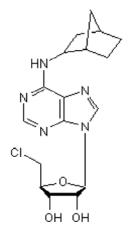
Physical and Chemical Properties:

Batch Molecular Formula: $C_{17}H_{22}CIN_5O_3.\frac{1}{4}H_2O$

Batch Molecular Weight: 384.34 Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM ethanol 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:

Franchetti *et al* (2009) N⁶-cycloalkyl- and N⁶-bicycloalkyl-C5'(C2')-modified adenosine derivatives as high-affinity and selective agonists at the human A₁ adenosine receptor with antinociceptive effects in mice. J.Med.Chem. **52** 2393. PMID: 19317449.

Trivedi *et al* (1989) N⁶-bicycloalkyladenosines with unusually high potency and selectivity for the adenosine A1 receptor. J.Med.Chem. **32** 8. PMID: 2909748.