Print Date: Mar 11th 2022

# Certificate of Analysis

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**Product Name:** **(±)-5'-Chloro-5'-deoxy-ENBA** **Catalog No.: 3576** **Batch No.: 2**

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:** $C_{17}H_{22}ClN_5O_3.¼H_2O$

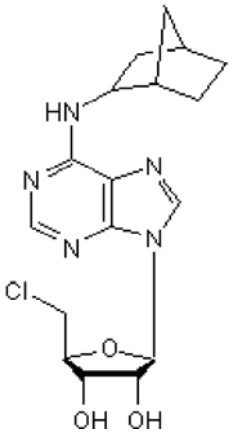
**Batch Molecular Weight:** 384.34

**Physical Appearance:** White solid

**Solubility:** DMSO to 100 mM
ethanol to 100 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**




## 2. ANALYTICAL DATA

**TLC:** $R_f$ = 0.32 (Dichloromethane:Methanol [9:1])

**HPLC:** Shows >99.3% purity

**$^1$H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

| | Carbon | Hydrogen | Nitrogen |
|---|---|---|---|
| Theoretical | 53.13 | 5.9 | 18.22 |
| Found | 53.21 | 5.62 | 18.3 |



**bio-techne.com**
info@bio-techne.com
techsupport@bio-techne.com

**North America**
Tel: (800) 343 7475

**China**
info.cn@bio-techne.com
Tel: +86 (21) 52380373

**Europe Middle East Africa**
Tel: +44 (0)1235 529449

**Rest of World**
www.tocris.com/distributors
Tel:+1 612 379 2956

# Product Information



**Product Name:** **(±)-5'-Chloro-5'-deoxy-ENBA** **Catalog No.: 3576** **Batch No.: 2**

CAS Number: 103626-26-2

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 formalin-induced nocifensive behavior in mice; antinociceptive.

**Physical and Chemical Properties:**

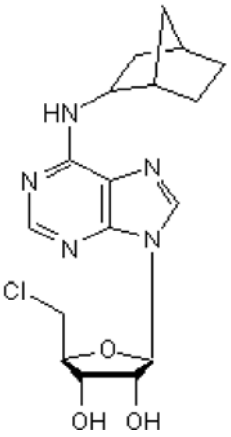
Batch Molecular Formula: $C_{17}H_{22}ClN_5O_3.¼H_2O$

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) $N^6$-cycloalkyl- and $N^6$-bicycloalkyl-C5'(C2')-modified adenosine derivatives as high-affinity and selective agonists at the human $A_1$ adenosine receptor with antinociceptive effects in mice. J.Med.Chem. ***52*** 2393. PMID: 19317449.

**Trivedi** *et al* (1989) $N^6$-bicycloalkyladenosines with unusually high potency and selectivity for the adenosine A1 receptor. J.Med.Chem. ***32*** 8. PMID: 2909748.