bio-techne
TOCRIS

Print Date: Jun 6th 2023

Certificate of Analysis

www.tocris.com

Product Name: **NECA** **Catalog No.: 1691** **Batch No.: 5**

CAS Number: 35920-39-9

IUPAC Name: 1-(6-Amino-9*H*-purin-9-yl)-1-deoxy-*N*-ethyl-β-D-ribofuranuronamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{12}H_{16}N_6O_4.¾H_2O$

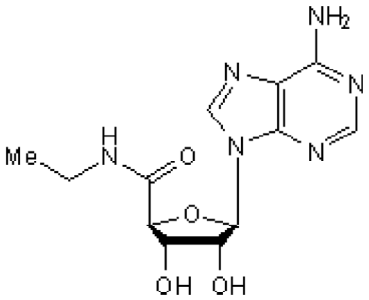
Batch Molecular Weight: 321.81

Physical Appearance: White solid

Solubility: DMSO to 40 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Optical Rotation: $[\alpha]_D$ = -18.9 (Concentration = 0.92, Solvent = 1M HCl (aq))

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	44.79	5.48	26.12
Found	44.18	5.58	25.88

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 Name: **NECA** **Catalog No.: 1691** **5**

CAS Number: 35920-39-9

IUPAC Name: 1-(6-Amino-9*H*-purin-9-yl)-1-deoxy-*N*-ethyl-β-D-ribofuranuronamide

Description:

NECA is a high affinity adenosine receptor agonist (K_i values are 6.2, 14, and 20 nM for human A_3, A_1 and A_{2A} receptors respectively; EC_{50} = 2.4 µM for human A_{2B}). Inhibits platelet aggregation and is centrally active in vivo.

Physical and Chemical Properties:

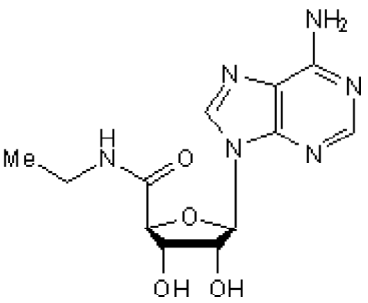
Batch Molecular Formula: $C_{12}H_{16}N_6O_4.¾H_2O$

Batch Molecular Weight: 321.81

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 40 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. *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:

Knapp *et al* (2001) Adenosine agonists CGS21680 and NECA inhibit the initiation of cocaine self-administration. Pharmacol.Biochem.Behav. ***68*** 797. PMID: 11526979.

Klotz (2000) Adenosine receptors and their ligands. Naunyn Schmiedebergs Arch.Pharmacol. ***362*** 382. PMID: 11111832.

Cusack and Hourani (1981) 5'-N-ethylcarboxamidoadenosine: a potent inhibitor of human platelet aggregation. Br.J.Pharmacol. ***72*** 443. PMID: 7260485.