TOCRIS
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Print Date: Jan 15th 2016

Certificate of Analysis

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Product Name: **ANR 94** **Catalog No.: 3937** **Batch No.: 1**

CAS Number: 634924-89-3

IUPAC Name: 8-Ethoxy-9-ethyl-9*H*-purin-6-amine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_9H_{13}N_5O$

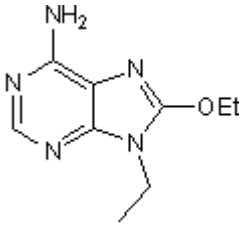
Batch Molecular Weight: 207.23

Physical Appearance: Off-white solid

Solubility: DMSO to 50 mM
ethanol to 100 mM

Storage: Store at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.43 (Chloroform:Methanol [9:1])

HPLC: Shows 100% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	52.16	6.32	33.79
Found	52.16	6.22	33.87

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CAS Number: 634924-89-3

IUPAC Name: 8-Ethoxy-9-ethyl-9*H*-purin-6-amine

Description:

Adenosine A_{2A} receptor ($AA_{2A}R$) antagonist (K_i values are 643 and 46 nM for rat and human $AA_{2A}Rs$ respectively). Most active $AA_{2A}R$ antagonist for human receptors. Displays activity in the treatment of Parkinson's disease in vivo; improves parkinsonian motor deficits and tremors. Exhibits neuroprotective and anti-inflammatory effects.

Physical and Chemical Properties:

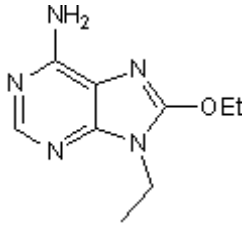
Batch Molecular Formula: $C_9H_{13}N_5O$

Batch Molecular Weight: 207.23

Physical Appearance: Off-white solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO to 50 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:

Pinna *et al* (2010) A new ethyladenine antagonist of adenosine A_{2A} receptors: Behavioral and biochemical characterization as an antiparkinsonian drug. Neuropharmacology ***58*** 613. PMID: 19951715.

Volpini *et al* (2010) Adenosine A_{2A} receptor antagonists: New 8-substituted 9-ethyladenines as tools for in vivo rat models of Parkinson's disease. Chem.Med.Chem. ***4*** 1010.

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