



Certificate of Analysis

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Product Name: ZYS 1 Catalog No.: 8921 Batch No.: 1

CAS Number: 2734853-80-4

IUPAC Name: 5'-Chloro-5'-deoxy-2-fluoroadenosine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{10}H_{11}CIFN_5O_3$.

Batch Molecular Weight: 303.68 **Physical Appearance:** White solid

Solubility: DMSO to 100 mM Storage: Store at -20°C

Batch Molecular Structure:

2. ANALYTICAL DATA

HPLC: Shows 99.7% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 39.55 3.65 23.06 Found 39.1 3.67 22.88

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Product Information

Print Date: Sep 16th 2025

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CAS Number: 2734853-80-4

IUPAC Name: 5'-Chloro-5'-deoxy-2-fluoroadenosine

Description:

ZYS 1 is an ADAR1 (adenosine deaminase acting on RNA 1) deaminase inhibitor (IC $_{50}$ = 946 nM). In vitro, ZYS 1 exhibits antiproliferative activity against multiple prostate cancer cell lines. In vivo, ZYS 1 displays antitumor efficacy in prostate cancer cell-derived xenograft mouse model (20 mg and 40 mg per kg (body weight) intraperitoneally, with tumor growth inhibition rates of 66.68% and 81.83%, respectively).

Physical and Chemical Properties:

Batch Molecular Formula: $C_{10}H_{11}CIFN_5O_3$.

Batch Molecular Weight: 303.68 Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:

Storage: Store at -20°C

Solubility & Usage Info:

DMSO 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. *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:

Wang et al (2025) Targeting ADAR1 with a small molecule for the treatment of prostate cancer. Nat.Cancer 6 474. PMID: 39930013.