

Certificate of Analysis

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Product Name: Olomoucine

Catalog No.: 1284

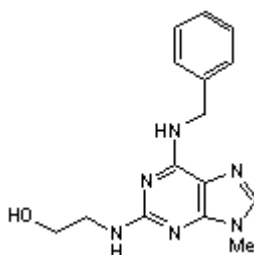
Batch No.: 1

CAS Number: 101622-51-9

IUPAC Name: 6-(Benzylamino)-2-(2-hydroxyethylamino)-9-methylpurine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{15}H_{18}N_6O \cdot \frac{1}{4}H_2O$
Batch Molecular Weight: 302.8438
Physical Appearance: White solid
Solubility: ethanol to 50 mM
Storage: Desiccate at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: $R_f = 0.51$ (Dichloromethane:Methanol [10:1])
Melting Point: Between 142 - 145°C
¹H NMR: Consistent with structure
Microanalysis:

| | Carbon | Hydrogen | Nitrogen |
|-------------|--------|----------|----------|
| Theoretical | 59.49 | 6.16 | 27.75 |
| Found | 59.28 | 6.01 | 27.58 |

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Cyclin-dependent kinase inhibitor that competes for the ATP binding site of the kinase. Selectively inhibits cdc2/cyclin B (IC_{50} = 7 μ M), cdk2/cyclin A (IC_{50} = 7 μ M), cdk2/cyclin E (IC_{50} = 7 μ M), cdk/p35 kinase (IC_{50} = 3 μ M) and ERK1/MAP kinase (IC_{50} = 25 μ M). Arrests human fibroblasts in the G1 phase.

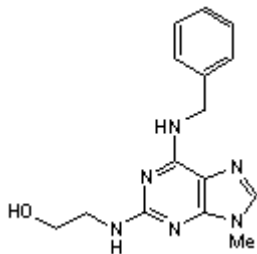
Physical and Chemical Properties:

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Storage: Desiccate at -20°C

Solubility & Usage Info:

ethanol to 50 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:

Vesely et al (1994) Inhibition of cyclin-dependent kinases by purine analogues. *Eur.J.Biochem.* **224** 771. PMID: 7925396.

Abraham et al (1995) Cellular effects of olomoucine, an inhibitor of cyclin-dependent kinases. *Biol.Cell* **83** 105. PMID: 7549905.

Alessi et al (1998) The cyclin-dependent kinase inhibitors olomoucine and roscovitine arrest human fibroblasts in G1 phase by specific inhibition of CDK2 kinase activity. *Exp.Cell.Res.* **245** 8. PMID: 9828096.

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