Print Date: Nov 22nd 2018

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: $C_{15}H_{18}N_6O.¼H_2O$

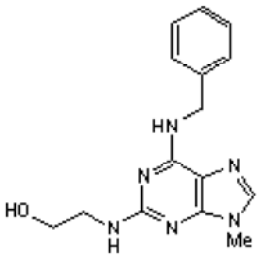
Batch Molecular Weight: 302.8438

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

^{1}H NMR: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	59.49	6.16	27.75
Found	59.28	6.01	27.58

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Description:

ATP-competitive cyclin-dependent kinase (cdk) inhibitor (reported IC_{50} values are 0.6 and 0.94 - 8 µM for cdk7 and cdk2 respectively, and >1 µM for cdk1 and cdk9. Induces cell cycle arrest at G1 in human fibroblasts.

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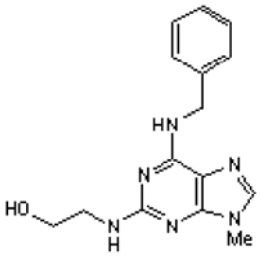

Storage: Desiccate at -20°C

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:

Jorda *et al* (2018) How selective are pharmacological inhibitors of cell-cycle-regulating cyclin-dependent kinases? J.Med.Chem. ***61*** 9105. PMID: 30234987 .

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.

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

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