

Certificate of Analysis

www.tocris.com

Product Name: AZ 3146

Catalog No.: 3994

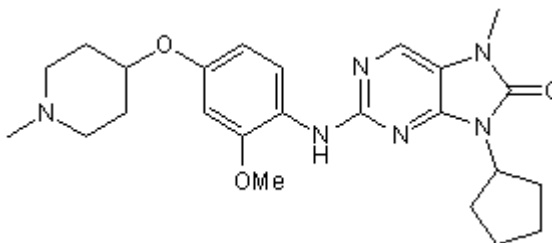
Batch No.: 2

CAS Number: 1124329-14-1

IUPAC Name: 9-Cyclopentyl-2-[[2-methoxy-4-[(1-methylpiperidin-4-yl)oxy]-phenyl]amino]-7-methyl-7,9-dihydro-8H-purin-8-one

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₄H₃₂N₆O₃·H₂O
Batch Molecular Weight: 470.57
Physical Appearance: White solid
Solubility: DMSO to 25 mM
ethanol to 75 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.37 (Dichloromethane:Methanol:Ammonia soln. [95:5:0.1])
HPLC: Shows 99.7% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	61.26	7.28	17.86
Found	61.18	7.29	17.91

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

Product Name: AZ 3146

Catalog No.: 3994

Batch No.: 2

CAS Number: 1124329-14-1

IUPAC Name: 9-Cyclopentyl-2-[[2-methoxy-4-[(1-methylpiperidin-4-yl)oxy]-phenyl]amino]-7-methyl-7,9-dihydro-8H-purin-8-one

Description:

Potent and selective monopolar spindle 1 (Mps1) kinase inhibitor (IC₅₀ = 35 nM). Displays selectivity over 46 other kinases including Cdk1 and aurora kinase B. Interferes with chromosome alignment and overrides spindle assembly checkpoint. Inhibits the recruitment of Mad1, Mad2 and centromere protein E (CENP-E) to kinetochores.

Physical and Chemical Properties:

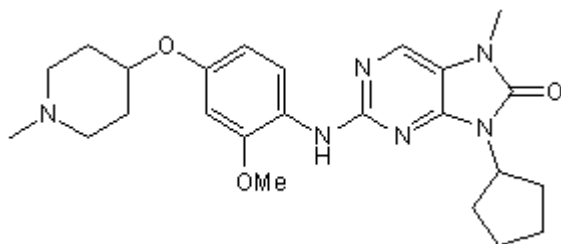
Batch Molecular Formula: C₂₄H₃₂N₆O₃.H₂O

Batch Molecular Weight: 470.57

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 25 mM

ethanol to 75 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:

Hewitt *et al* (2010) Sustained Mps1 activity is required in mitosis to recruit O-Mad2 to the Mad1-C-Mad2 core complex. *J.Cell Biol.* **190** 25. PMID: 20624899.

Lan and Cleveland (2010) A chemical tool box defines mitotic and interphase roles for Mps1 kinase. *J.Cell.Biol.* **190** 21. PMID: 20624898.

Maciejowski *et al* (2010) Mps1 directs the assembly of Cdc20 inhibitory complexes during interphase and mitosis to control M phase timing and spindle checkpoint signaling. *J.Cell Biol.* **190** 89. PMID: 20624902.

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

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