

Certificate of Analysis

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Product Name: AZ Dyrk1B 33

Catalog No.: 5632

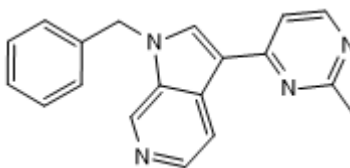
Batch No.: 1

CAS Number: 1679330-37-0

IUPAC Name: 3-(2-Methyl-4-pyrimidinyl)-1-(phenylmethyl)-1*H*-pyrrolo[2,3-*c*]pyridine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₉H₁₆N₄
Batch Molecular Weight: 300.36
Physical Appearance: Off White solid
Solubility: 1eq. HCl to 100 mM
 DMSO to 100 mM
 ethanol to 100 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.11 (Ethyl acetate:Methanol [9:1])
HPLC: Shows >99.7% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	75.98	5.37	18.64
Found	75.97	5.27	18.53

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

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Description:

Potent and selective ATP-competitive Dyrk1B kinase inhibitor (IC₅₀ = 7 nM); displays distinct cellular effects when compared to DYRK1B knockdown through siRNA. Demonstrates cellular in vitro activity (IC₅₀ = 194 nM). Exhibits better selectivity than AZ 191 (Cat. No 5232); displays no off-target effects against a panel of 124 kinases tested (no kinase was inhibited above 50% at 1 μM).

Physical and Chemical Properties:

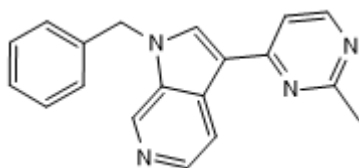
Batch Molecular Formula: C₁₉H₁₆N₄

Batch Molecular Weight: 300.36

Physical Appearance: Off White solid

Minimum Purity: >98%

Batch Molecular Structure:



References:

Kettle et al (2015) Discovery and optimization of a novel series of Dyrk1B kinase inhibitors to explore a MEK resistance hypothesis. *J.Med.Chem.* **58** 2834. PMID: 25738750.

Storage: Store at +4°C

Solubility & Usage Info:

1eq. HCl to 100 mM
DMSO to 100 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.

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