

Certificate of Analysis

Product Name: WZ 4003

Catalog No.: 5177

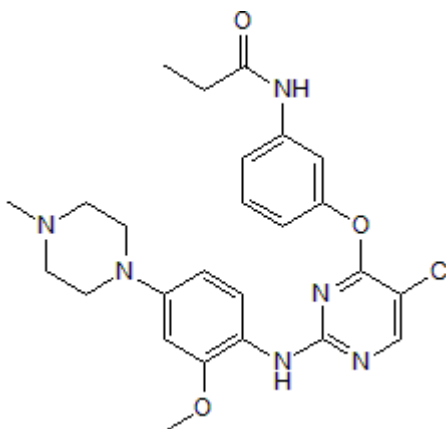
Batch No.: 1

CAS Number: 1214265-58-3

IUPAC Name: *N*-3-[[[5-Chloro-2-[[2-methoxy-4-(4-methyl-1-piperazinyl)phenyl]amino]-4-pyrimidinyl]oxy]phenyl]propanamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₂₅ H ₂₉ ClN ₆ O ₃
Batch Molecular Weight:	496.99
Physical Appearance:	Off White solid
Solubility:	1eq. HCl to 50 mM DMSO to 20 mM with gentle warming
Storage:	Store at -20°C
Batch Molecular Structure:	



2. ANALYTICAL DATA

TLC:	R _f = 0.25 (Dichloromethane:Methanol [9:1])
HPLC:	Shows 98.4% purity
¹H NMR:	Consistent with structure
Mass Spectrum:	Consistent with structure
Microanalysis:	

	Carbon	Hydrogen	Nitrogen
Theoretical	60.42	5.88	16.91
Found	60.53	5.91	16.89

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

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Description:

Potent and selective NUA1/2 inhibitor (IC₅₀ values are 20 and 100 nM respectively). Exhibits no significant inhibition against a panel of 139 kinases, including ten AMPK family members. Inhibits NUA1-mediated MYPT1 phosphorylation. Also inhibits cell proliferation in U2OS cells.

Physical and Chemical Properties:

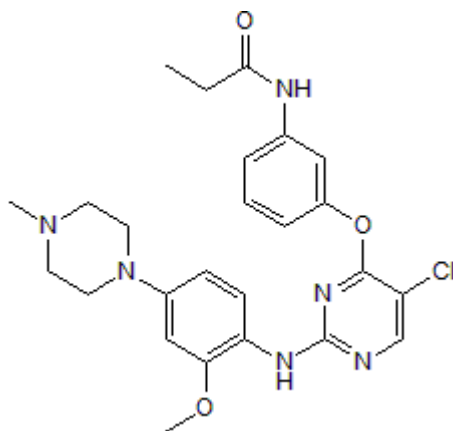
Batch Molecular Formula: C₂₅H₂₉ClN₆O₃

Batch Molecular Weight: 496.99

Physical Appearance: Off White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

1eq. HCl to 50 mM

DMSO to 20 mM with gentle warming

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:

Zhou et al (2009) Novel mutant-selective EGFR kinase inhibitors against EGFR T790M. *Nature* **462** 1070. PMID: 20033049.

Banerjee et al (2014) Interplay between Polo kinase, LKB1-activated NUA1 kinase, PP1βMYPT1 phosphatase complex and the SCFβTrCP E3 ubiquitin ligase. *Biochem.J.* **461** 233. PMID: 24785407.

Banerjee et al (2014) Characterization of WZ4003 and HTH-01-015 as selective inhibitors of the LKB1-tumour-suppressor-activated NUA1 kinases. *Biochem.J.* **457** 215. PMID: 24171924.

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