

Certificate of Analysis

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Product Name: ML 240

Catalog No.: 5153

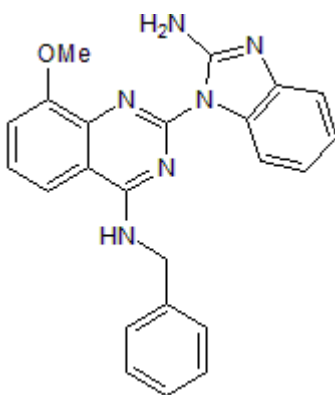
Batch No.: 1

CAS Number: 1346527-98-7

IUPAC Name: 2-(2-Amino-1*H*-benzimidazole-1-yl)-8-methoxy-*N*-(phenylmethyl)-4-quinazolinamine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₃H₂₀N₆O
Batch Molecular Weight: 396.44
Physical Appearance: White solid
Solubility: DMSO to 20 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.31 (Dichloromethane:Methanol [95:5])
HPLC: Shows 99.8% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	69.68	5.08	21.2
Found	69.33	5.06	21.07

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

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Description:

ATP-competitive inhibitor of p97 ATPase (VCP, IC₅₀ = 110 nM). Exhibits antiproliferative activity in NCI-60 cancer cell lines and rapidly induces executioner caspases 3 and 7 in multiple colon cancer cells. Promotes accumulation of LC3-II and impairs autophagosome maturation. Also impairs the endoplasmic-reticulum-associated degradation (ERAD) pathway.

Physical and Chemical Properties:

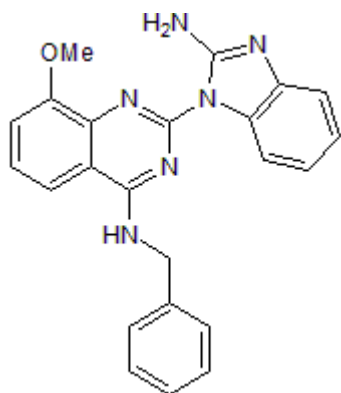
Batch Molecular Formula: C₂₃H₂₀N₆O

Batch Molecular Weight: 396.44

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



References:

Chou et al (2013) Structure-activity relationship study reveals ML240 and ML241 as potent and selective inhibitors of p97 ATPase. *ChemMedChem* **8** 297. PMID: 23316025.

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 20 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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