

**Product Name:** ML 240

**Catalog No.:** 5153

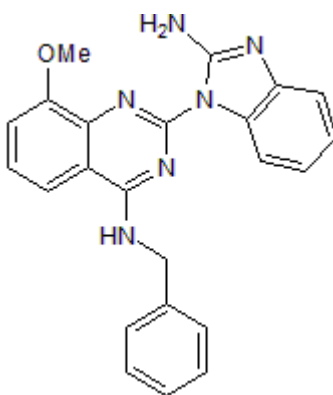
**Batch No.:** 1

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:** C<sub>23</sub>H<sub>20</sub>N<sub>6</sub>O  
**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<sub>f</sub> = 0.31 (Dichloromethane:Methanol [95:5])  
**HPLC:** Shows 99.8% purity  
**<sup>1</sup>H 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

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**Description:**

ATP-competitive inhibitor of p97 ATPase (IC<sub>50</sub> = 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:**

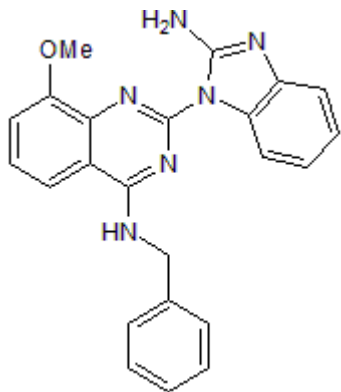
Batch Molecular Formula: C<sub>23</sub>H<sub>20</sub>N<sub>6</sub>O

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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Tocris Bioscience is an R&D Systems company

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