

**Product Name:** MB 0223

**Catalog No.:** 6799

**Batch No.:** 1

CAS Number: 2247732-89-2

IUPAC Name: 4-Methyl-1-((2-(piperidin-1-yl)thiazol-4-yl)methyl)-N-(4-(pyridin-3-yl)phenyl)-1H-pyrrole-2-carboxamide

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>26</sub>H<sub>27</sub>N<sub>5</sub>OS.1/4H<sub>2</sub>O

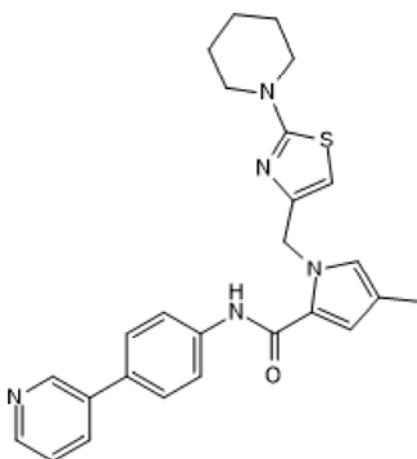
**Batch Molecular Weight:** 462.09

**Physical Appearance:** Off White solid

**Solubility:** DMSO to 100 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.4 (Dichloromethane:Methanol [9:1])

**HPLC:** Shows 98.8% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	67.58	6	15.16
Found	67.78	5.91	15.19

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**Description:**

MB 0223 is a dynamin-related GTPase DRP1 partial inhibitor (IC<sub>50</sub> = 1.2 μM). Selective for DRP1 over other dynamin-related GTPases, OPA1 and DYN1. Increases mitochondrial DNA levels in mfn1- knockout MEFs deficient in mitochondrial fusion.

**Physical and Chemical Properties:**

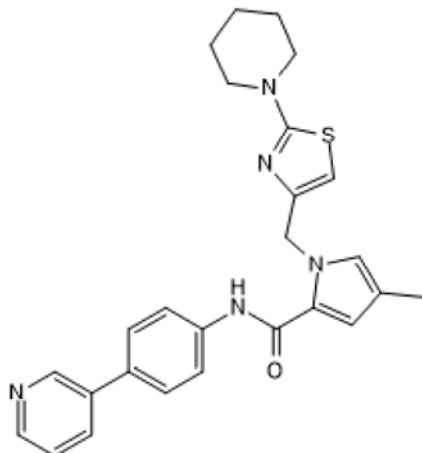
Batch Molecular Formula: C<sub>26</sub>H<sub>27</sub>N<sub>5</sub>OS.½H<sub>2</sub>O

Batch Molecular Weight: 462.09

Physical Appearance: Off White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO 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.

**References:**

**Mallat et al** (2018) Discovery and characterization of selective small molecule inhibitors of the mammalian mitochondrial division dynamin, DRP1. *Biochem.Biophys.Res.Commun.* **499** 556. PMID: 29601815.

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