

Certificate of Analysis

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Product Name: Miro1 Reducer

Catalog No.: 7091

Batch No.: 1

CAS Number: 2624336-91-8

IUPAC Name: *N*-(3-Fluorophenyl)-*N'*-[4-[[6-(1*H*-imidazol-1-yl)-4-pyrimidinyl]amino]phenyl]urea hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₀H₁₆FN₇O.HCl.1½H₂O

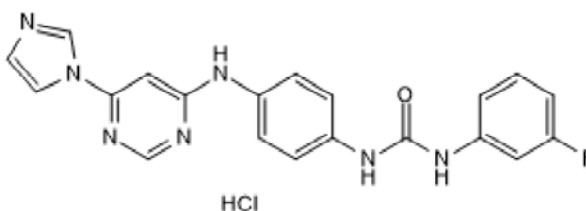
Batch Molecular Weight: 452.87

Physical Appearance: Beige/pale yellow solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 97.9% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen	Chlorine
Theoretical	53.04	4.45	21.65	7.83
Found	52.84	4.06	21.62	8.1

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

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Description:

Miro1 Reducer is a promotes proteasomal degradation of Miro1 (mitochondrial Rho GTPase 1). Reduces Miro1 levels in fibroblasts from Parkinson's disease (PD) patients (IC₅₀ = 7.8 μM). Exhibits no significant effect on related outer mitochondrial membrane protein Mitofusin. Reduces stress-induced degeneration of dopaminergic neurons derived from PD patient iPSCs. Rescues age-dependent neuronal loss and prolongs lifespan in fly PD models.

Physical and Chemical Properties:

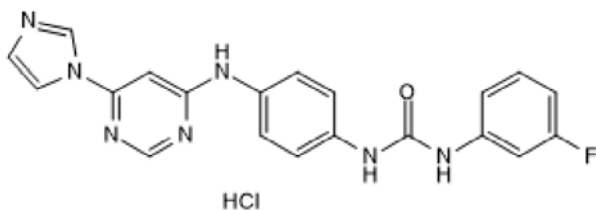
Batch Molecular Formula: C₂₀H₁₆FN₇O.HCl.1½H₂O

Batch Molecular Weight: 452.87

Physical Appearance: Beige/pale yellow 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:

Hsieh *et al* (2019) Miro1 marks Parkinson's disease subset and Miro1 reducer rescues neuron loss in Parkinson's models. *Cell Metab.* **30** 1131. PMID: 31564441.

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