

Product Name: IU1-47

Catalog No.: 6443

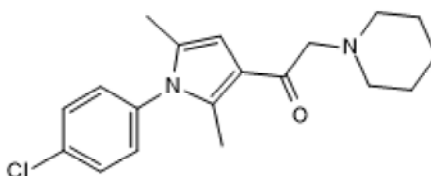
Batch No.: 1

CAS Number: 670270-31-2

IUPAC Name: 1-[1-(4-Chlorophenyl)-2,5-dimethyl-1*H*-pyrrol-3-yl]-2-(1-piperidinyl)ethanone

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₉H₂₃ClN₂O
Batch Molecular Weight: 330.85
Physical Appearance: Off White solid
Solubility: DMSO to 10 mM with gentle warming
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.3 (Dichloromethane:Methanol [9:1])
HPLC: Shows 99.7% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	68.97	7.01	8.47
Found	68.95	7.06	8.48

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

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Description:

Potent USP14 inhibitor (IC₅₀ = 60 nM). Demonstrates >30-fold selectivity for USP14 over USP5 (IsoT). Enhances degradation of proteasome substrates in vitro. Increases degradation of wild type and pathological tau in MEFs, primary neuronal cultures and human iPSC derived neurons.

Physical and Chemical Properties:

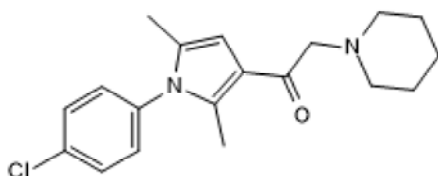
Batch Molecular Formula: C₁₉H₂₃ClN₂O

Batch Molecular Weight: 330.85

Physical Appearance: Off White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 10 mM with gentle warming

This product is unstable in solution. We recommend that solutions of this product are stored at -20°C and used within 24 hours.

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:

Boselli et al (2017) An inhibitor of the proteasomal deubiquitinating enzyme USP14 induces tau elimination in cultured neurons. *J.Biol.Chem.* **292** 19209. PMID: 28972160.

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