



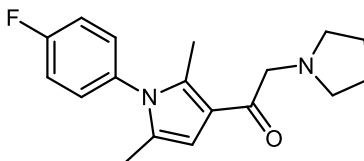
Catalog # 10-1197

IU1

CAS# 314245-33-5

1-[1-(4-Fluorophenyl)-2,5-dimethyl-1H-pyrrol-3-yl]-2-(1-pyrrolidinyl)ethanone

Lot # S101179



Selective inhibitor of Usp14 ($IC_{50} < 4 \mu M$). Enhances proteasome activity and substrate proteolysis.^{1,2} Inhibits Dengue virus replication.³ In prion-infected CAD5 cells activation of the ubiquitin proteasome system by IU1 is sufficient to induce clearance of polyubiquitinated substrates and reduce misfolded prion protein load.⁴ Attenuates ischemia/reperfusion-induced neuronal injury in a mouse model.⁵ Cell permeable.

- 1) Lee et al. (2010), *Enhancement of proteasome activity by a small-molecule inhibitor of USP14*; Nature, **467** 1179
- 2) Lee et al. (2010), *Trimming of ubiquitin chains by proteasome-associated deubiquitinating enzymes*; Mol. Cell. Proteomics, **10** R110
- 3) Nag and Finley (2012), *A small-molecule inhibitor of deubiquitinating enzyme USP14 inhibits Dengue virus replication*; Virus Res., **165** 103
- 4) McKinnon et al. (2016), *Prion-mediated neurodegeneration is associated with early impairment of the ubiquitin-proteasome system*; Acta Neuropathol., **131** 411
- 5) Min et al. (2017), *USP14 inhibitor attenuates cerebral ischemia/reperfusion-induced neuronal injury in mice*; J. Neurochem., **140** 826

PHYSICAL DATA

Molecular Weight:	300.38
Molecular Formula:	C ₁₈ H ₂₁ FN ₂ O
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 30 mg/ml), Ethanol (up to 15 mg/ml)
Physical Description:	Beige solid
Storage and Stability:	Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 1 month.

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