

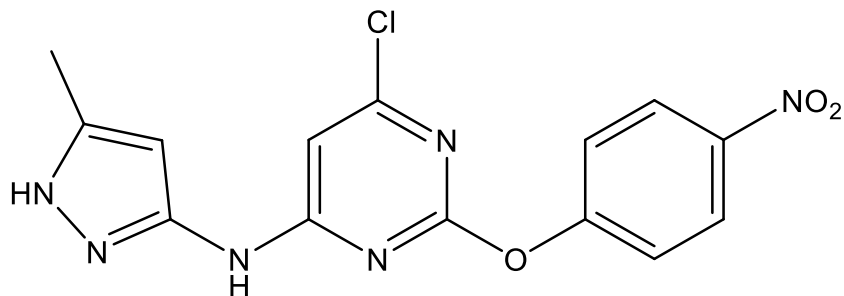
Catalog # 10-3476

Autophinib

CAS# 1644443-47-9

6-Chloro-N-(5-methyl-1H-pyrazol-3-yl)-2-(4-nitrophenoxy)-4-pyrimidinamine

Lot # X108477



Autophinib inhibits autophagy induced by starvation or rapamycin by inhibiting the lipid kinase VPS34 (IC₅₀=19 nM).¹ Increased autophagy and apoptosis were rescued by autophinib in Per1-overexpressing oral squamous cell carcinoma cells.² Autophinib has quickly become an important biochemical tool for inhibition of autophagy in a variety of cellular contexts.³⁻⁵

- 1) Robke *et al.* (2017), *Phenotypic Identification of a Novel Autophagy Inhibitor Chemotype Targeting Lipid Kinase VPS34*; *Angew. Chem. Int. Ed. Engl.*, **56** 8153
- 2) Yang *et al.* (2020), *Loss of the clock gene Per1 promotes oral squamous cell carcinoma progression via the AKT/mTOR pathway*; *Cancer Sci.*, **111** 1542
- 3) Yang *et al.* (2019), *Increased expression of lncRNA CASC9 promotes tumor progression by suppressing autophagy-mediated cell apoptosis via the AKT/mTOR pathway in oral squamous cell carcinoma*; *Cell Death Dis.*, **10** 41
- 4) Relic *et al.* (2021), *TFEB phosphorylation on Serine 211 is induced by autophagy in human synovial fibroblasts and by p62/SQSTM1 overexpression in HEK293 cells*; *Biochem. J.*, **478** 3145
- 5) Li *et al.* (2022), *The circadian clock gene ARNTL overexpression suppresses oral cancer progression by inducing apoptosis via activating autophagy*; *Med. Oncol.*, **39** 244

PHYSICAL DATA

Molecular Weight:	346.73
Molecular Formula:	C ₁₄ H ₁₁ ClN ₆ O ₃
Purity:	>98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (30 mg/ml)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

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