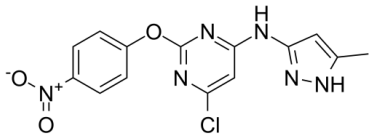
Data Sheet

Product Name:	Autophinib
Cat. No.:	CS-7665
CAS No.:	1644443-47-9
Molecular Formula:	C14H11ClN6O3
Molecular Weight:	346.73
Target:	Autophagy
Pathway:	Autophagy
Solubility:	DMSO : ≥ 30 mg/mL (86.52 mM); H2O : < 0.1 mg/mL (insoluble)



BIOLOGICAL ACTIVITY:

Autophinib is a potent, selective **autophagy** inhibitor with **IC_{50}**s of 90 nM and 40 nM for starvation- and Rapamycin-induced **autophagy**, respectively. Autophinib is also an ATP competitive **Vacuolar Protein Sorting 34 (VPS34)** inhibitor with an **IC_{50}** of 19 nM. Autophinib inhibits **autophagy** induced by starvation or Rapamycin by targeting **VPS34**[1]. IC50 & Target: IC50: 19 nM (VPS34), 40 nM (Rapamycin-induced autophagy), 90 nM (starvation-induced autophagy)[1] **In Vitro:** Autophinib (0.01-1 μM) inhibits LC3 lipidation to form LC3-II in a dose-dependent manner in starved MCF7-LC3 cells. Consistent with inhibition of autophagic flux, Autophinib also inhibits p62 degradation by autophagy dose-dependently in MCF7-LC3 cells[1].
Autophinib enhances cell death (**EC_{50}** of 264 nM) of starved cells as compared to fed cells, which occurred via the induction of apoptosis (**EC_{50}** of 234 nM) in MCF7 cells[1].

References:

[1]. Robke L, et al. Phenotypic Identification of a Novel Autophagy Inhibitor Chemotype Targeting Lipid Kinase VPS34. Angew Chem Int Ed Engl. 2017 Jul 3;56(28):8153-8157.

CAIndexNames:

4-Pyrimidinamine, 6-chloro-N-(5-methyl-1H-pyrazol-3-yl)-2-(4-nitrophenoxy)-

SMILES:

CC1=CC(NC2=NC(OC3=CC=C([N+]([O-])=O)C=C3)=NC(Cl)=C2)=NN1

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 732-484-9848 Fax: 888-484-5008 E-mail: sales@ChemScene.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA