Mycro 3

Cat. No.: HY-100669

CAS No.: 944547-46-0

Molecular Formula: $C_{24}H_{17}ClF_2N_6O_4$

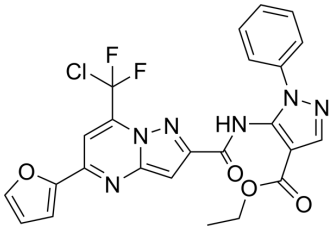
Molecular Weight: 526.88

Target: c-Myc; Autophagy

Pathway: Apoptosis; Autophagy

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (189.80 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	1.8980 mL	9.4898 mL	18.9797 mL
5 mM	0.3796 mL	1.8980 mL	3.7959 mL
10 mM	0.1898 mL	0.9490 mL	1.8980 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: 2.5 mg/mL (4.74 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Mycro 3 is an orally active, potent and selective inhibitor of Myc-associated factor X (MAX) dimerization. Mycro 3 also inhibit DNA binding of c-Myc[1]. Mycro 3 could be used for the research of pancreatic cancer[2].

IC_{50} & Target

Myc-MAX dimerization[1]

In Vitro

Mycro 3 is a potent and selective c-Myc inhibitor in whole cell assays, with weak inhibitory activity against Activator protein 1 (AP-1). Mycro 3 has a superior specificity profile to its predecessors. Mycro 3 inhibits the interaction between c-Myc and Max. Mycro 3 has high selectivity and inhibits c-Myc/Max dimerization and conjugation with DNA[1]. Mycro 3 exhibits an excellent specificity with IC_{50}s of 0.25 and 9.0 μM for cells with intact Myc alleles and Myc-null cells, respectively[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Mycro 3 (100 mg/kg; oral administration; daily for two months) induces marked shrinkage of pancreatic ductal adenocarcinoma (PDA), increases cancer cell apoptosis, and reduces cell proliferation. Tumor growth is also drastically attenuated in Mycro 3-treated NOD/SCID mice carrying orthotopic or heterotopic xenografts of human pancreatic cancer cells[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Moribund Pdx1-cre/KRAS* mice bearing pancreatic ductal adenocarcinoma (PDA)[2]
Dosage:	100 mg/kg
Administration:	Oral administration; daily for two months
Result:	Increased survival time. Mycro 3 administration was discontinued after two months, the mouse survived for an additional month.

CUSTOMER VALIDATION

- Cell Mol Immunol. 2022 Sep;19(9):1030-1041.
- Cell Death Dis. 2020 Sep 15;11(9):760.
- Cancer Cell Int. 2021 Dec 14;21(1):670.
- Research Square Preprint. 2021 Sep.

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REFERENCES

[1]. Chen BJ, et al. Small molecules targeting c-Myc oncogene: promising anti-cancer therapeutics. Int J Biol Sci. 2014 Sep 13;10(10):1084-96.

[2]. Dimitris Stellas, et al. Therapeutic effects of an anti-Myc drug on mouse pancreatic cancer. J Natl Cancer Inst. 2014 Oct 11;106(12):dju320.

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