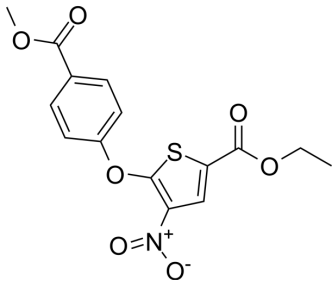
Wu-5

Cat. No.:	HY-153886
CAS No.:	2630378-05-9
Molecular Formula:	$C_{15}H_{13}NO_7S$
Molecular Weight:	351.33
Target:	FLT3; AMPK; Apoptosis
Pathway:	Protein Tyrosine Kinase/RTK; Epigenetics; PI3K/Akt/mTOR; Apoptosis
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 : 25 mg/mL (71.16 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.8463 mL	14.2316 mL	28.4633 mL
	5 mM	0.5693 mL	2.8463 mL	5.6927 mL
	10 mM	0.2846 mL	1.4232 mL	2.8463 mL

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

BIOLOGICAL ACTIVITY

Description

Wu-5 is a USP10 inhibitor that can inhibit FLT3 and AMPK pathways, induce FLT3-ITD degradation and induce apoptosis[1].

In Vitro

Wu-5 (10 μM; 24, 48, 72 h) selectively induces the death of FLT3-ITD-positive AML cells[1].

Wu-5 (1, 2.5, 5 μM; 24, 48 h) induces apoptosis of FLT3-ITD-positive AML cells in a concentration and time-dependent manner [1].

Wu-5 (5 μM; 24 h) induces FLT3-ITD degradation by the proteasome pathway[1].

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

Cell Viability Assay[1]

Cell Line:	U937, HL60, MV4-11, Molm13, and MV4-11-R cells
Concentration:	10 μM
Incubation Time:	24, 48, 72 h
Result:	Significantly inhibited the growth of the FLT3-ITD-positive cells (MV4-11, MV4-11-R and

	Molm13 cells), but had no or little effect on the proliferation of the FLT3-ITD negative cells (U937 and HL60 cells).
Apoptosis Analysis[1]	
Cell Line:	MV4-11, and Molm13 cells
Concentration:	1, 2.5, 5 μM
Incubation Time:	24, 48 h
Result:	Induced the apoptosis of MV4-11 and Molm13 in a concentration and time-dependent manner.
Western Blot Analysis[1]	
Cell Line:	MV4-11, MV4-11-R, and Molm13 cells
Concentration:	5 μM
Incubation Time:	24 h
Result:	Induced FLT3-ITD degradation.

REFERENCES

[1]. Miao Yu, et al. Wu-5, a novel USP10 inhibitor, enhances crenolanib-induced FLT3-ITD-positive AML cell death via inhibiting FLT3 and AMPK pathways. Acta Pharmacol Sin. 2021 Apr;42(4):604-612.

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