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Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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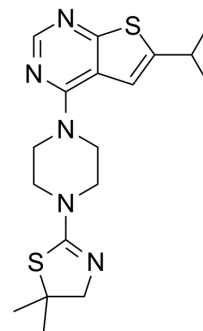
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MI-3

Cat. No.:	HY-15223		
CAS No.:	1271738-59-0		
Molecular Formula:	C ₁₈ H ₂₅ N ₅ S ₂		
Molecular Weight:	375.55		
Target:	Epigenetic Reader Domain; Apoptosis		
Pathway:	Epigenetics; Apoptosis		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 8.33 mg/mL (22.18 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.6628 mL	13.3138 mL	26.6276 mL
	5 mM	0.5326 mL	2.6628 mL	5.3255 mL
	10 mM	0.2663 mL	1.3314 mL	2.6628 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 0.83 mg/mL (2.21 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 0.83 mg/mL (2.21 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 0.83 mg/mL (2.21 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

MI-3 (Menin-MLL inhibitor 3) is a potent and high affinity menin-MLL inhibitor with an IC₅₀ of 648 nM and a K_d of 201 nM^[1].

IC₅₀ & Target

IC₅₀: 648 nM (menin-MLL); K_d: 201 nM (menin-MLL)^[1]

In Vitro

MI-3 (12.5-50 μM; HEK293 cells) treatment effectively inhibits the menin-MLL-AF9 interaction in human cells^[1].
MI-3 (0-1.6 μM; 72 hours; KOPN-8 and MV4;11 cells) treatment shows an effective and dose-dependent growth inhibition in KOPN-8, MV4 and ME-1 cells^[1].

MI-3 (12.5-50 μ M; 48 hours; MV4;11 cells) treatment results in a substantial, and dose-dependent increase in Annexin V and AnnexinV/propidium iodide (PI) cells, demonstrating an increase in the number of cells undergoing apoptosis^[1].
MI-3 (6.25-25 μ M; 6 days; THP-1 cells) treatment results in substantially reduced expression of HOXA9 and MEIS1^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis^[1]

Cell Line:	HEK293 cells
Concentration:	12.5 μ M, 25 μ M, 50 μ M
Incubation Time:	
Result:	Very effectively inhibited the menin-MLL-AF9 interaction in human cells.

Cell Viability Assay^[1]

Cell Line:	KOPN-8 and MV4;11 cells
Concentration:	0 μ M, 0.4 μ M, 0.8 μ M, 1.2 μ M, 1.6 μ M
Incubation Time:	72 hours
Result:	Showed an effective and dose-dependent growth inhibition in KOPN-8 and MV4;11 cells.

Apoptosis Analysis^[1]

Cell Line:	MV4;11 cells
Concentration:	12.5 μ M, 25 μ M, 50 μ M
Incubation Time:	48 hours
Result:	Resulted in an increase in the number of cells undergoing apoptosis.

RT-PCR^[1]

Cell Line:	THP-1 cells
Concentration:	6.25 μ M, 12.5 μ M, 25 μ M
Incubation Time:	6 days
Result:	Resulted in substantially reduced expression of HOXA9 and MEIS1.

CUSTOMER VALIDATION

- Clin Transl Med. 2022 Aug;12(8):e982.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Grembecka J, et al. Menin-MLL inhibitors reverse oncogenic activity of MLL fusion proteins in leukemia. Nature Chemical Biology (2012), 8(3), 277-284.

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

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