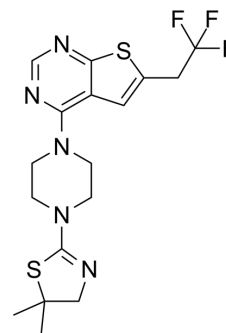


## MI-2-2

<b>Cat. No.:</b>	HY-108350
<b>CAS No.:</b>	1454920-20-7
<b>Molecular Formula:</b>	C <sub>17</sub> H <sub>20</sub> F <sub>3</sub> N <sub>5</sub> S <sub>2</sub>
<b>Molecular Weight:</b>	415.5
<b>Target:</b>	Epigenetic Reader Domain
<b>Pathway:</b>	Epigenetics
<b>Storage:</b>	-20°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 100 mg/mL (240.67 mM; Need ultrasonic)				
		Solvent Concentration	Mass		
	<b>Preparing Stock Solutions</b>		1 mg	5 mg	10 mg
		1 mM	2.4067 mL	12.0337 mL	24.0674 mL
		5 mM	0.4813 mL	2.4067 mL	4.8135 mL
	10 mM	0.2407 mL	1.2034 mL	2.4067 mL	
Please refer to the solubility information to select the appropriate solvent.					
<b>In Vivo</b>	1. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 3.75 mg/mL (9.03 mM); Clear solution				

### BIOLOGICAL ACTIVITY

<b>Description</b>	MI-2-2 is a potent menin-MLL inhibitor. MI-2-2 binds to menin with low nanomolar affinity ( $K_d=22\text{nM}$ ) and very effectively disrupts the bivalent protein-protein interaction between menin and MLL. MI-2-2 has specific and very pronounced activity in MLL leukemia cells, including inhibition of cell proliferation, down-regulation of Hoxa9 expression, and differentiation <sup>[1]</sup> .
<b>In Vitro</b>	MI-2-2 is capable of inhibiting both the interaction of menin with MBM1 ( $IC_{50}=46\text{ nM}$ ) and with the bivalent fragment of MLL that comprises both MBM1 and MBM2 ( $IC_{50}=520\text{ nM}$ ). MI-2-2 exhibits very pronounced activities at low micromolar concentrations in BMCs transformed with MLL-AF9 and in MV4;11, a human leukemia cell line harboring the MLL-AF4 translocation <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

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

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