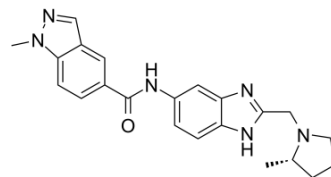


## SGC-iMLLT

Cat. No.:	HY-112804		
CAS No.:	2255338-25-9		
Molecular Formula:	C <sub>22</sub> H <sub>24</sub> N <sub>6</sub> O		
Molecular Weight:	388.47		
Target:	Epigenetic Reader Domain		
Pathway:	Epigenetics		
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 : 83.33 mg/mL (214.51 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.5742 mL	12.8710 mL	25.7420 mL
	5 mM	0.5148 mL	2.5742 mL	5.1484 mL
	10 mM	0.2574 mL	1.2871 mL	2.5742 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: ≥ 2.08 mg/mL (5.35 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: 2.08 mg/mL (5.35 mM); Suspended solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.08 mg/mL (5.35 mM); Clear solution

## BIOLOGICAL ACTIVITY

### Description

SGC-iMLLT is a first-in-class chemical probe and a potent, selective inhibitor of MLLT1/3-histone interactions with an IC<sub>50</sub> of 0.26 μM. SGC-iMLLT shows high binding activity towards MLLT1 YEATS domain (YD) and MLLT3 YD (AF9/YEATS3) with K<sub>d</sub>s of 0.129 and 0.077 μM, respectively<sup>[1]</sup>.

### IC<sub>50</sub> & Target

IC<sub>50</sub>: 0.26 μM (MLLT1 YD)<sup>[1]</sup>  
K<sub>d</sub>: 0.077 μM (MLLT3 YD), 0.129 μM (MLLT1 YD)<sup>[1]</sup>

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**In Vivo**

SGC-iMLLT shows moderate metabolic resistance with  $t_{1/2}$  of 53 min and 48 % remaining after 60 min, and the primary process for metabolism is N demethylation<sup>[1]</sup>.

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

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**REFERENCES**

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[1]. Moustakim M, et al. Discovery of an MLLT1/3 YEATS Domain Chemical Probe. *Angew Chem Int Ed Engl*. 2018 Dec 10;57(50):16302-16307.

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

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