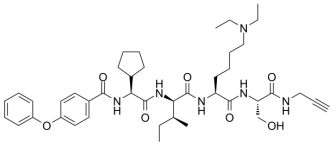
SW2_110A

Cat. No.:	HY-141716
Molecular Formula:	$C_{42}H_{60}N_6O_7$
Molecular Weight:	760.96
Target:	Histone Methyltransferase
Pathway:	Epigenetics
Storage:	-20°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (164.27 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.3141 mL	6.5706 mL	13.1413 mL
	5 mM	0.2628 mL	1.3141 mL	2.6283 mL
	10 mM	0.1314 mL	0.6571 mL	1.3141 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (2.73 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (2.73 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (2.73 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

SW2_110A is a selective chromobox 8 chromodomain (CBX8 ChD) inhibitor with a K_d of 800 nM. SW2_110A shows minimal 5-fold selectivity for CBX8 ChD over all other CBX paralogs in vitro[1].

In Vitro

SW2_110A specifically inhibits the association of CBX8 with chromatin in cells and inhibits the proliferation of THP1 leukemia cells driven by the MLL-AF9 translocation (IC_{50} of 26 μM). In THP1 cells, SW2_110A treatment results in a significant decrease in the expression of MLL-AF9 target genes, including HOXA9[1].

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

REFERENCES

[1]. Sijie Wang, et al. Optimization of Ligands Using Focused DNA-Encoded Libraries To Develop a Selective, Cell-Permeable CBX8 Chromodomain Inhibitor. ACS Chem Biol. 2020 Jan 17;15(1):112-131.

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