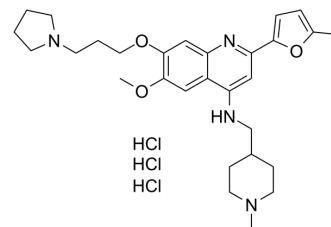


CM-579 trihydrochloride

Cat. No.:	HY-117421A
Molecular Formula:	C ₂₉ H ₄₃ Cl ₃ N ₄ O ₃
Molecular Weight:	602
Target:	Histone Methyltransferase; DNA Methyltransferase
Pathway:	Epigenetics
Storage:	4°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 37.5 mg/mL (62.29 mM; Need ultrasonic)						
	DMSO : 33.33 mg/mL (55.37 mM; Need ultrasonic)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	1.6611 mL	8.3056 mL	16.6113 mL
				5 mM	0.3322 mL	1.6611 mL	3.3223 mL
10 mM				0.1661 mL	0.8306 mL	1.6611 mL	
Please refer to the solubility information to select the appropriate solvent.							
In Vivo	1. Add each solvent one by one: PBS Solubility: 16.67 mg/mL (27.69 mM); Clear solution; Need ultrasonic and warming and heat to 60°C						
	2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (4.15 mM); Clear solution						
	3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (4.15 mM); Clear solution						

BIOLOGICAL ACTIVITY

Description	CM-579 trihydrochloride is a first-in-class reversible, dual inhibitor of G9a and DNMT, with IC ₅₀ values of 16 nM, 32 nM for G9a and DNMT, respectively. Has potent in vitro cellular activity in a wide range of cancer cells ^[1] .			
IC ₅₀ & Target	DNA Methyltransferase	DNMT1	DNMT3A	DNMT3B
	32 nM (IC ₅₀)	1.5 nM (Kd)	92 nM (IC ₅₀)	1000 nM (IC ₅₀)
	G9a			
	16 nM (IC ₅₀)			

In Vitro

The K_d of CM-579 for DNMT1 is 1.5 nM, CM-579 also inhibits DNMT3A and DNMT3B, with IC_{50} s of 92 nM and 1000 nM, respectively^[1].

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

REFERENCES

[1]. San José-Enériz E, et al. Discovery of first-in-class reversible dual small molecule inhibitors against G9a and DNMTs in hematological malignancies. Nat Commun. 2017 May 26;8:15424.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA