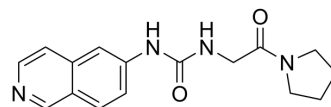


SGC707

Cat. No.:	HY-19715		
CAS No.:	1687736-54-4		
Molecular Formula:	C ₁₆ H ₁₈ N ₄ O ₂		
Molecular Weight:	298.34		
Target:	Histone Methyltransferase		
Pathway:	Epigenetics		
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 : ≥ 100 mg/mL (335.19 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	3.3519 mL	16.7594 mL	33.5188 mL
	5 mM	0.6704 mL	3.3519 mL	6.7038 mL
	10 mM	0.3352 mL	1.6759 mL	3.3519 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: ≥ 3 mg/mL (10.06 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: ≥ 3 mg/mL (10.06 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 3 mg/mL (10.06 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

SGC707 is a potent, selective, and non-competitive PRMT3 (protein arginine methyltransferase 3) inhibitor (IC₅₀=31 nM, K_d=53 nM).

IC₅₀ & Target

PRMT3
 31 nM (IC₅₀)

In Vitro	SGC707 (0-10 μ M; 6 h) binds to PRMT3 in both HEK293 and A549 cells ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Cell Viability Assay ^[1]	
	Cell Line:	HEK293 and A549 cells
	Concentration:	0-10 μ M
	Incubation Time:	6 hours
Result:	Stabilized PRMT3 in both HEK293 and A549 cells with EC ₅₀ values of 1.3 μ M and 1.6 μ M, respectively.	
In Vivo	SGC707 (intraperitoneal injection; 10 mg/kg; 3 times per week; 3 w) treatment reduces hepatic steatosis and plasma triglyceride levels and induces pruritus in Western-type diet-fed LDL receptor knockout mice ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Western-type diet-fed LDL (lipoprotein) receptor knockout mice ^[2]
	Dosage:	10 mg/kg
	Administration:	Intraperitoneal injection; 10 mg/kg; 3 times per week; 3 weeks
	Result:	Exhibited 50% lower liver triglyceride stores as well as 32% lower plasma triglyceride levels.

CUSTOMER VALIDATION

- Adv Sci (Weinh). 2023 Nov 16:e2303812.
- Proc Natl Acad Sci U S A. 2019 Feb 19;116(8):2961-2966.
- Clin Transl Med. 2022 Jan;12(1):e686.
- Cell Death Dis. 2025 Mar 6;16(1):158.
- Cell Death Dis. 2021 Nov 9;12(11):1066.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. de Jong LM, et al. PRMT3 inhibitor SGC707 reduces triglyceride levels and induces pruritus in Western-type diet-fed LDL receptor knockout mice. Sci Rep. 2022 Jan 10;12(1):483.
- [2]. Kaniskan HÜ, et al. A potent, selective and cell-active allosteric inhibitor of protein arginine methyltransferase 3 (PRMT3). Angew Chem Int Ed Engl. 2015 Apr 20;54(17):5166-70.

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 F, Monmouth Junction, NJ 08852, USA