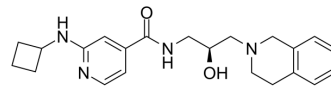


GSK591

| | | | |
|--------------------|---|-------|---------|
| Cat. No.: | HY-100235 | | |
| CAS No.: | 1616391-87-7 | | |
| Molecular Formula: | C ₂₂ H ₂₈ N ₄ O ₂ | | |
| Molecular Weight: | 380.48 | | |
| 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 : 50 mg/mL (131.41 mM; Need ultrasonic) | | | | | |
| | | Solvent Concentration | Mass | 1 mg | 5 mg | 10 mg |
| | Preparing Stock Solutions | 1 mM | | 2.6283 mL | 13.1413 mL | 26.2826 mL |
| | | 5 mM | | 0.5257 mL | 2.6283 mL | 5.2565 mL |
| 10 mM | | | 0.2628 mL | 1.3141 mL | 2.6283 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: ≥ 2.25 mg/mL (5.91 mM); Clear solution | | | | | |
| | 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.25 mg/mL (5.91 mM); Clear solution | | | | | |
| | 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.25 mg/mL (5.91 mM); Clear solution | | | | | |

BIOLOGICAL ACTIVITY

| | |
|---------------------------|---|
| Description | GSK591 (EPZ015866) is a potent and selective inhibitor of protein methyltransferase 5 (PRMT5) with an IC ₅₀ of 4 nM ^[1] . |
| IC ₅₀ & Target | IC ₅₀ : 4 nM (PRMT5) ^[1] |
| In Vitro | GSK591 (5 μM; MCF7, T47D, and MCF10A cells) treatment suppresses breast cancer stem cells (BCSCs) proliferation and self-renewal. GSK591 reduces BCSCs numbers in vitro ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

Cell Proliferation Assay^[2]

| | |
|------------------|--|
| Cell Line: | MCF7, T47D, and MCF10A cells |
| Concentration: | 5 μ M |
| Incubation Time: | |
| Result: | Suppressed BCSCs proliferation and self-renewal. |

CUSTOMER VALIDATION

- Nat Commun. 2019 Aug 21;10(1):3761.
- Theranostics. 2021 Jan 27;11(8):3742-3759.
- Proc Natl Acad Sci U S A. 2019 Feb 19;116(8):2961-2966.
- J Biol Chem. 2022 Aug 27;102434.
- Mol Carcinog. 2023 May 5.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. [1] Kenneth W. Duncan et al. Structure and Property Guided Design in the Identification of PRMT5 Tool Compound EPZ015666. ACS Med. Chem. Lett., 2016, 7 (2), pp 162-166.
- [2]. Chiang K, et al. PRMT5 Is a Critical Regulator of Breast Cancer Stem Cell Function via Histone Methylation and FOXP1 Expression. Cell Rep. 2017 Dec 19;21(12):3498-3513.

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