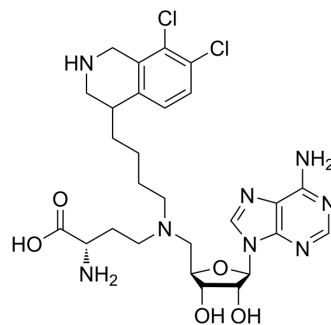


PNMT-IN-1

Cat. No.:	HY-149389
Molecular Formula:	C ₂₇ H ₃₆ Cl ₂ N ₈ O ₅
Molecular Weight:	623.53
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	PNMT-IN-1 (inhibitor 4) is a specific inhibitor of phenylethanolamine N-methyltransferase (PNMT) with a K _i value of 1.2 nM and a IC ₅₀ value of 81 nM. PNMT-IN-1 also inhibits the vitality of DNMT1 and DNMT3b, with the IC ₅₀ value of 61 μM and 17 μM, respectively, and has an antagonistic effect on epinephrine. PNMT-IN-1 (inhibitor 4) is a second generation inhibitor ^[1] .																
IC₅₀ & Target	IC ₅₀ :81 nM (Phenylethanolamine N-methyltransferase, PNMT) ^[1] IC ₅₀ :61 nM (DNMT1) ^[1] IC ₅₀ :17 nM (DNMT3b) ^[1]																
In Vitro	<p>PNMT-IN-1 (inhibitor 4) (0.01 μM, 4h) inhibits the activity of hPNMT (IC₅₀= 81 nM) but don't affect protein methylation^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Viability Assay</p> <table border="1"> <tr> <td>Cell Line:</td> <td>Overexpressed hPNMT in HEK293T cells using a lentiviral vector^[1]</td> </tr> <tr> <td>Concentration:</td> <td>0-10 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h</td> </tr> <tr> <td>Result:</td> <td>Inhibited the activity of hPNMT (IC₅₀=81nM)</td> </tr> </table> <p>Western Blot Analysis</p> <table border="1"> <tr> <td>Cell Line:</td> <td>HT-29 cell^[1]</td> </tr> <tr> <td>Concentration:</td> <td>10 μg</td> </tr> <tr> <td>Incubation Time:</td> <td>6 days</td> </tr> <tr> <td>Result:</td> <td>Changed total SDMA, ADMA, and Me3-lysine not significant.</td> </tr> </table>	Cell Line:	Overexpressed hPNMT in HEK293T cells using a lentiviral vector ^[1]	Concentration:	0-10 μM	Incubation Time:	24 h	Result:	Inhibited the activity of hPNMT (IC ₅₀ =81nM)	Cell Line:	HT-29 cell ^[1]	Concentration:	10 μg	Incubation Time:	6 days	Result:	Changed total SDMA, ADMA, and Me3-lysine not significant.
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REFERENCES

[1]. Niusha Mahmoodi, et al. Cell-Effective Transition-State Analogue of Phenylethanolamine N-Methyltransferase. *Biochemistry*. 2023, 62(15), 2257-2268.

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

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