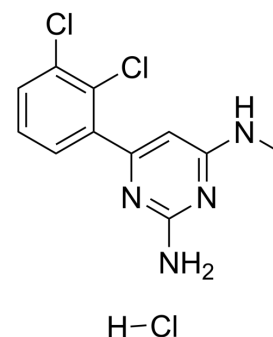


TH287 hydrochloride

Cat. No.:	HY-16965A
CAS No.:	1638211-05-8
Molecular Formula:	C ₁₁ H ₁₁ Cl ₃ N ₄
Molecular Weight:	305.59
Target:	DNA/RNA Synthesis
Pathway:	Cell Cycle/DNA Damage
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	TH287 hydrochloride is a potent and selective inhibitor of MTH1, with an IC ₅₀ of 0.8 nM. TH287 hydrochloride is highly selective towards MTH1, with no relevant inhibition of MTH2, NUDT5, NUDT12, NUDT14, NUDT16, dCTPase, dUTPase and ITPA at 100 μM. TH287 hydrochloride could act as a chemotherapeutic agent for cancer research ^[1] .
IC₅₀ & Target	IC ₅₀ : 0.8 nM (MTH1) ^[1]
In Vitro	TH287 (1-10 μM; 24 h) selectively and effectively kills U2OS and other cancer cell lines, but is considerably less toxic to several primary or immortalized cells ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	TH287 (5 mg/kg; i.p.) exhibits C _{max} of 0.82 μM and t _{max} of 0.5 h in mice ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Acta Biomater. 2020 Jun;109:229-243.
- J Mol Med (Berl). 2019 Aug;97(8):1183-1193.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Gad H, et al. MTH1 inhibition eradicates cancer by preventing sanitation of the dNTP pool. Nature. 2014 Apr 10;508(7495):215-21.

[2]. Saleh A, et, al. Development and validation of method for TH588 and TH287, potent MTH1 inhibitors and new anti-cancer agents, for pharmacokinetic studies in mice plasma. J Pharm Biomed Anal. 2015 Feb;104:1-11.

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

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