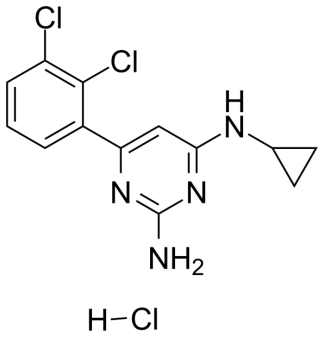
TH588 hydrochloride

Cat. No.:	HY-12814A
CAS No.:	1640282-30-9
Molecular Formula:	$C_{13}H_{13}Cl_3N_4$
Molecular Weight:	331.63
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

TH588 hydrochloride is first-in-class nudix hydrolase family inhibitor that potently and selectively engage and inhibit the MTH1 (IC_{50}= 5 nM).

In Vitro

TH588 (2-10μM; 7-10 days) selectively and effectively kills U2OS, HeLa, MDA-MB-231, MCF-7, SW480, and SW620 cells with IC_{50}s of 1.38, 0.83, 1.03, 1.08, 1.72, 0.8 μM [1].

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

Cell Viability Assay[1]

Cell Line:	U2OS, HeLa, MDA-MB-231, MCF-7, SW480, SW620, VH10, HDFn cells
Concentration:	2, 4, 6, 8, 10 μM
Incubation Time:	7–10 days
Result:	Selectively and effectively killed U2OS, HeLa, MDA-MB-231, MCF-7, SW480, and SW620 cells with IC_{50}s of 1.38, 0.83, 1.03, 1.08, 1.72, 0.8 μM, respectively, but was less toxic to several primary or immortalized cells.

In Vivo

TH588 (30 mg/kg; s.c.; once daily for 35 days) reduces tumour growth in SW480 xenograft cancer model[1].

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

Animal Model:	5-6 weeks female SCID mice (SW480 xenograft cancer model)[1]
Dosage:	30 mg/kg
Administration:	Subcutaneous injection (s.c.); once daily for 35 days
Result:	Reduced tumour growth in SW480 xenograft cancer model.

CUSTOMER VALIDATION

- 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.

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