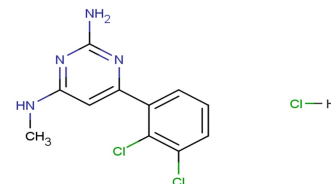


## TH287 hydrochloride

## Chemical Properties

CAS No.:	1638211-05-8
Formula:	C <sub>11</sub> H <sub>11</sub> Cl <sub>3</sub> N <sub>4</sub>
Molecular Weight:	305.59
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).



## Biological Description

Description	TH287 is a selective MTH1 inhibitor (IC <sub>50</sub> : 0.8 nM). It causes incorporation of oxidized dNTPs in cancer cells, leading to DNA damage, cytotoxicity and therapeutic responses in patient-derived mouse xenografts.
In vitro	TH287 as first-in-class nudix hydrolase family inhibitor that potently and selectively engage and inhibit the MTH1 protein in cells. Protein co-crystal structures demonstrate that the inhibitors bind in the active site of MTH1. The inhibitors cause incorporation of oxidized dNTPs in cancer cells, leading to DNA damage, cytotoxicity and therapeutic responses in patient-derived mouse xenografts[1].

## Solubility Information

Solubility	DMSO: 10 mM (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.272 mL	16.362 mL	32.724 mL
5 mM	0.654 mL	3.272 mL	6.545 mL
10 mM	0.327 mL	1.636 mL	3.272 mL
50 mM	0.065 mL	0.327 mL	0.654 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

## Reference

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.

Inhibitors · Natural Compounds · Compound Libraries

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