



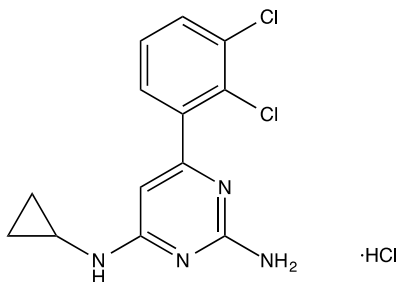
Catalog #10-4602

TH588

1609960-31-7 (free base)

N4-Cyclopropyl-6-(2,3-dichlorophenyl)pyrimidine-2,4-diamine hydrochloride

Lot # FBA3106



TH588 is a first-in-class nudix hydrolase family inhibitor.¹ MTH1/NUDT1 is a family member that “sanitizes” oxidized deoxynucleotide triphosphates (dNTP) preventing their incorporation into DNA and thus avoiding DNA damage and cell death. TH588 inhibits MTH1/NUDT1 (IC₅₀ = 5 nM) leading to cell death in several cancer cell lines while not affecting normal cells. Active *in vitro* and *in vivo*. Recent evidence has raised doubts about the cancer-killing ability of MTH1 inhibition.^{2,3}

- 1) Gad *et al.* (2014), *MTH1 inhibition eradicates cancer by preventing sanitation of the dNTP pool*; Nature **508** 215
- 2) Petrocchi *et al.* (2016) *Identification of potent and selective MTH1 inhibitors*; Bioorg.Med.Chem.Lett. **26** 1503
- 3) Kettle *et al.* (2016), *Potent and Selective Inhibitors of MTH1 Probe Its Role in Cancer Cell Survival*; J.Med.Chem. **59** 2346

PHYSICAL DATA

Molecular Weight:	331.63
Molecular Formula:	C ₁₃ H ₁₂ Cl ₂ N ₄ ·HCl
Purity:	>98% (TLC)
	NMR: (Conforms)
Solubility:	DMSO (5 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.

Focus Biomolecules LLC 400 Davis Drive, Suite 600 Plymouth Meeting PA 19462

www.focusbiomolecules.com