

Catalog # 10-1560

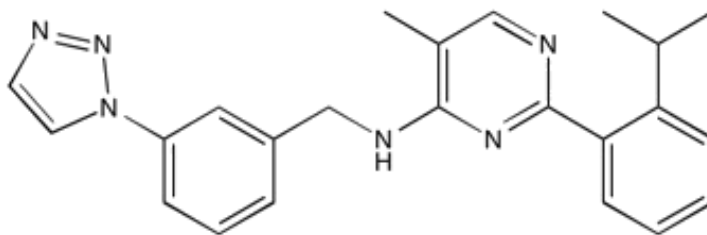
ML323

CAS# 1571424-83-5

N-(4-(1H-1,2,3-Triazol-1-yl(benzyl)-5-methyl-2-(2-isopropylphenyl)pyrimidin-4-amine

CID 60167849; NCGC00262306

Lot # X106413



Potent and reversible USP1-UAF1 deubiquitinase complex inhibitor with excellent selectivity against human DUBs, deSUMOylase, deneddylase and unrelated proteases, $IC_{50}=76$ nm in a ubiquitin-rhodamine 110 assay.¹ In H1299 non-small cell lung cancer cells treatment with ML323 dose dependently and robustly increased levels of monoubiquitinated PCNA compared to untreated cells at concentrations as low as 1 μ M.¹ It potentiates cisplatin cytotoxicity in non-small cell lung cancer and osteosarcoma cells.² ML323 inhibition of upregulated USP1 in BRCA1-deficient tumor cells results in replication fork destabilization and decreased viability.³

- 1) Dexheimer et al. (2014), *Synthesis and structure-activity relationship studies of N-benzyl-2-phenylpyrimidin-4-amine derivatives as potent USP1/UAF1 deubiquitinase inhibitors with anticancer activity against nonsmall cell lung cancer*; J. Med. Chem., **57** 8099
- 2) Liang et al. (2014), *A selective USP1-UAF1 inhibitor links deubiquitination to DNA damage responses*; Nat. Chem. Biol., **10** 298
- 3) Lim et al. (2018) *USP1 is required for replication fork protection in BRCA1-deficient tumors*; Mol. Cell **72** 925

PHYSICAL DATA

Molecular Weight:	384.48
Molecular Formula:	C ₂₃ H ₂₄ N ₆
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	Soluble in DMSO (up to 40 mg/ml) or in Ethanol (up to 20 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 1 year from the date of purchase. Solutions in DMSO or ethanol 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.