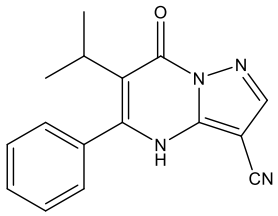
Catalog # 10-4035

CPI-455

CAS# 1628208-23-0

7-oxo-5-phenyl-6-propan-2-yl-1*H*-pyrazolo[1,5-a]pyrimidine-3-carbonitrile

Lot # FBS2007



CPI-455 (1628208-23-0) is a potent (IC_{50} = 10 nM) and selective inhibitor of the lysine demethylase KDM5 (equal inhibition of KDM5A, 5B, 5C).[1] CPI-455 reduced the number of drug-tolerant persister cancer cells (DTPs) in a dose-dependent, KDM5-dependent manner in multiple cell lines treated with standard chemotherapy or targeted agents. CPI-455 synergized with 5-aza-2'-deoxycytidine (DAC) to reduce the viability of luminal breast cancer cells *in vitro*.[2] KDM5 demethylases have recently been shown to repress the immune response to tumors *via* suppression of STING.[3]

1) Vinogradova *et al.* (2016), *An inhibitor of KDM5 demethylases reduces survival of drug-tolerant cancer cells;* Nat. Chem. Biol. **12** 531

2) Leadem *et al.* (2018), *A KDM5 Inhibitor Increases Global H3K4 Trimethylation Occupancy and Enhances the Biological Efficacy of 5-Aza-2'-Deoxycytidine;* Cancer Res. **78** 1127

3) Wu *et al.* (2018), *KDM5 histone demethylases repress immune response via suppression of STING;* PLoS Biol. **16** e2006134dfd

PHYSICAL DATA

Molecular Weight:	278.32
Molecular Formula:	$C_{16}H_{14}N_4O$
Purity:	98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (>25 mg/ml)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied at -20ºC for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 month.

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

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