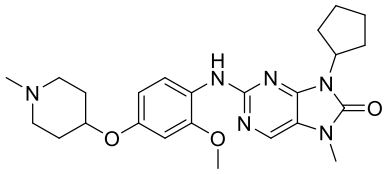
Product data sheet

MedKoo Cat#: 406239 Name: AZ3146 CAS#: 1124329-14-1 Chemical Formula: $C_{24}H_{32}N_6O_3$ Exact Mass: 452.25359 Molecular Weight: 452.55	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.
	In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:
AZ3146 is a novel and potent Mps1 inhibitor, which was used to probe the role of Mps1's catalytic activity during mitosis. AZ3146 also inhibits FAK, JNK1, JNK2, KSP and Kit. In in vitro kinase assays, AZ3146 inhibited human Mps1Cat with an IC50 (50% inhibitory concentration) of ~35 nM. AZ3146 also efficiently inhibited autophosphorylation of full-length Mps1 immunoprecipitated from human cells.

2. CoA, QC data, SDS, and handling instruction
SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	34.90	77.12
DMF	5.0	11.05
DMF:PBS (pH 7.2) (1:1)	0.5	1.10
Ethanol	42.31	93.49

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.21 mL	11.05 mL	22.10 mL
5 mM	0.44 mL	2.21 mL	4.42 mL
10 mM	0.22 mL	1.10 mL	2.21 mL
50 mM	0.04 mL	0.22 mL	0.44 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator
Please refer the product web page under section of "Calculator"

6. Recommended literature which reported protocols for in vitro and in vivo study
In vitro study

1. Zhang H, Yao W, Zhang M, Lu Y, Tang J, Jiang M, Mou X, You G, Liang X. TTK inhibitor promotes radiosensitivity of liver cancer cells through p21. Biochem Biophys Res Commun. 2021 Apr 23;550:84-91. doi: 10.1016/j.bbrc.2021.01.089. Epub 2021 Mar 6. Erratum in: Biochem Biophys Res Commun. 2021 May 28;555:214. PMID: 33689884.
2. Liu X, Liao W, Yuan Q, Ou Y, Huang J. TTK activates Akt and promotes proliferation and migration of hepatocellular carcinoma cells. Oncotarget. 2015 Oct 27;6(33):34309-20. doi: 10.18632/oncotarget.5295. PMID: 26418879; PMCID: PMC4741454.

In vivo study
N/A

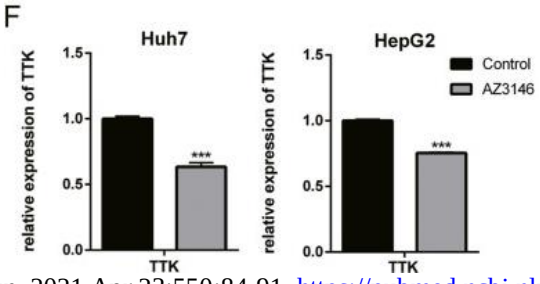
7. Bioactivity
Biological target:

Product data sheet

AZ3146 is a Mps1 inhibitor with IC50 of 35 nM for $Mps1^{Cat}$.

In vitro activity

To confirm the inhibition effect of AZ3146, PCR assay was used to detect the TTK level treated with AZ3146 for 24h. As shown in Fig. 1 F-G, the expression of TTK were decreased when added with TTK inhibitor compared to control group. These results indicate that AZ3146 effectively inhibited the TTK expression at both the RNA and protein levels in liver cancer.



Reference: Biochem Biophys Res Commun. 2021 Apr 23;550:84-91. https://pubmed.ncbi.nlm.nih.gov/33689884/

In vivo activity

N/A

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.