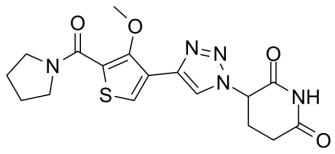
TMX-4116

Cat. No.:	HY-145322
CAS No.:	2766385-56-0
Molecular Formula:	$C_{17}H_{19}N_5O_4S$
Molecular Weight:	389.43
Target:	Casein Kinase; Molecular Glues
Pathway:	Cell Cycle/DNA Damage; Stem Cell/Wnt; PROTAC
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (256.79 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.5679 mL	12.8393 mL	25.6786 mL
	5 mM	0.5136 mL	2.5679 mL	5.1357 mL
	10 mM	0.2568 mL	1.2839 mL	2.5679 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (6.42 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.42 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.42 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

TMX-4116 is a casein kinase 1α (CK1α) degrader. TMX-4116 shows the degradation preference for CK1α with DC_{50}s less than 200 nM in MOLT4, Jurkat, and MM.1S cells. TMX-4116 can be used for the research of multiple myeloma[1].

IC_{50} & Target

CK1α

In Vitro

TMX-4116 (compound 16; 1 μM; 4 h) shows a high degradation preference for CK1α in MOLT4 cells[1].
TMX-4116 (250 nM, 4 h) induces primary target degradation of CK1α, while no downregulation of PDE6D, IKZF1, and IKZF3 in

MOLT4 cells[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	MOLT4 cells
Concentration:	1 μM
Incubation Time:	4 hours
Result:	Showed a high degradation preference for CK1α.

Western Blot Analysis[1]

Cell Line:	MOLT4, Jurkat, and MM.1S cells
Concentration:	0 nM, 40 nM, 200 nM, 1 μM
Incubation Time:	4 hours
Result:	Showed a high degradation preference for CK1α with the DC_{50} value less than 200 nM in MOLT4, Jurkat, and MM.1S cells.

REFERENCES

[1]. Teng M, et al. Development of PDE6D and CK1α Degraders through Chemical Derivatization of FPFT-2216. J Med Chem. 2022 Jan 13;65(1):747-756.

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