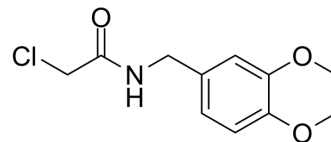


DKM 2-93

Cat. No.:	HY-101836		
CAS No.:	65836-72-8		
Molecular Formula:	C ₁₁ H ₁₄ ClNO ₃		
Molecular Weight:	243.69		
Target:	E1/E2/E3 Enzyme		
Pathway:	Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro	DMSO : 125 mg/mL (512.95 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	4.1036 mL	20.5179 mL	41.0357 mL
		5 mM	0.8207 mL	4.1036 mL	8.2071 mL
10 mM		0.4104 mL	2.0518 mL	4.1036 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (8.54 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (8.54 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (8.54 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	DKM 2-93 is a relatively selective inhibitor of UBA5 with an IC ₅₀ of 430 μM.
IC₅₀ & Target	IC ₅₀ : 430 μM (UBA5), 90 μM (PaCa2 cells), 30 μM (Panc1 cells) ^[1]
In Vitro	Ubiquitin-like modifier activating enzyme 5 (UBA5) is a novel pancreatic cancer therapeutic target. DKM 2-93 impairs pancreatic cancer cell survival through covalently modifying the catalytic cysteine of UBA5, thereby inhibiting its activity as a protein that activates the ubiquitin-like protein UFM1 to UFMylate proteins. DKM 2-93 inhibits PaCa2 and Panc1 cells

survival with IC₅₀s of 90 and 30 μM, respectively^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

DKM 2-93 daily treatment significantly impairs tumor growth of PaCa2 cells in vivo in tumor xenograft studies in immune-deficient mice without causing any weight loss or overt toxicity^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Cell Assay ^[1]

PaCa2 and Panc1 cells are treated with 0-1000 μM DKM 2-93 for 48 hours. Cell viability is assessed by Hoescht stain^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Administration ^[1]

Mice: Mice are subcutaneously injected with PaCa2 cells to initiate the tumor xenograft study and treatments of mice are initiated with vehicle or DKM 2-93 (50 mg/kg ip, once per day) three days after injection of cancer cells^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Cell Rep. 2019 Apr 16;27(3):971-986.e9.
- Cell Rep. 2019 Apr 16;27(3):971-986.e9.

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REFERENCES

[1]. Roberts AM, et al. Chemoproteomic Screening of Covalent Ligands Reveals UBA5 As a Novel Pancreatic Cancer Target. ACS Chem Biol. 2017 Apr 21;12(4):899-904.

Caution: Product has not been fully validated for medical applications. For research use only.

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