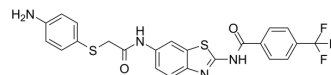


ZM223

Cat. No.:	HY-101790
CAS No.:	2031177-48-5
Molecular Formula:	C ₂₃ H ₁₇ F ₃ N ₄ O ₂ S ₂
Molecular Weight:	502.53
Target:	NEDD8-activating Enzyme
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



SOLVENT & SOLUBILITY

In Vitro	DMSO : 83.33 mg/mL (165.82 mM; Need ultrasonic)			
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg
				5 mg
				10 mg
				10 mM
1 mM	1.9899 mL	9.9497 mL	19.8993 mL	
5 mM	0.3980 mL	1.9899 mL	3.9799 mL	
10 mM	0.1990 mL	0.9950 mL	1.9899 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: ≥ 2.08 mg/mL (4.14 mM); Clear solution			

BIOLOGICAL ACTIVITY

Description	ZM223 is a potent non-covalent NEDD8 activating enzyme (NAE) inhibitor, orally active ^[1] .	
IC ₅₀ & Target	NEDD8 activating enzyme (NAE) ^[1]	
In Vitro	ZM223 (0.1-1 μM; 4 hours) inhibits both HCT-116 and U-2OS cancer cells with IC ₅₀ s of 100 and 122 nM, respectively ^[1] . ZM223 (0.1-1 μM; 4 hours) causes a dose-response decrease in the level of NEDD8 and accumulation of the UBC12 protein, indicating the decrease of the subsequent NEDD8-UBC12 complex ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. Cell Viability Assay ^[1]	
	Cell Line:	HCT116 colon cancer cells and U-2OS osteosarcoma cells
	Concentration:	0.1 μM, 1 μM

Incubation Time:	4 hours
Result:	Inhibited both HCT-116 and U-20S cancer cells.
Western Blot Analysis ^[1]	
Cell Line:	HCT116 colon cancer cells
Concentration:	0.1 μ M, 1 μ M
Incubation Time:	4 hours
Result:	Caused a decrease in the level of NEDD8 and an increase in the downstream UBC12 protein.

REFERENCES

[1]. Ma H, et al. Discovery of benzothiazole derivatives as novel non-sulfamide NEDD8 activating enzyme inhibitors by target-based virtual screening. Eur J Med Chem. 2017 Jun 16;133:174-183.

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

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