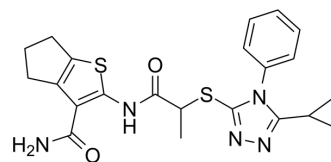


MASM7

Cat. No.:	HY-W187305		
CAS No.:	920868-45-7		
Molecular Formula:	C ₂₂ H ₂₃ N ₅ O ₂ S ₂		
Molecular Weight:	453.58		
Target:	Others		
Pathway:	Others		
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 (220.47 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.2047 mL	11.0234 mL	22.0468 mL
		5 mM	0.4409 mL	2.2047 mL	4.4094 mL
10 mM		0.2205 mL	1.1023 mL	2.2047 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 (5.51 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (4.59 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	MASM7 is a mitofusin activator, and can achieve mitochondrial fusion via mitofusins. MASM7 can increase Mito AR with an EC ₅₀ value of 75 nM in MEFs in concentration-responsively, and can promote mitochondrial fusion by directly activating MFN2 or MFN. MASM7 also demonstrates direct binding to the HR2 domain of MFN2 with K _d value of 1.1 μM ^[1] .
In Vitro	MASM7 (1-10 μM, 2 h) increases Mito AR with an EC ₅₀ value of 75 nM in MEFs in concentration-responsively, and can promote mitochondrial fusion by directly activating MFN2 or MFN ^[1] . MASM7 (1-1000 μM, 5 min) demonstrates direct binding to the HR2 domain of MFN2 with K _d value of 1.1 μM ^[1] . MASM7 (1 μM, 6 h) does not induce DNA damage in any of the cell lines ^[1] . MASM7 (0-1.5 μM, 72 h) does not decrease cellular viability over the course of 72 h ^[1] . MASM7 (1 μM, 6 h) does not induce caspase-3/7 activation in U2OS cells ^[1] .

MASM7 (0-1 μ M, 6 h) increases mitochondrial membrane potential in WT MEFs^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Emmanouil Zacharioudakis, et al. Modulating mitofusins to control mitochondrial function and signaling. Nat Commun. 2022 Jul 7;13(1):3775.

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

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