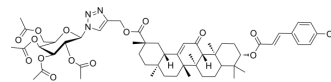


HMGB1-IN-1

Cat. No.:	HY-155751		
Molecular Formula:	C ₅₇ H ₇₅ N ₃ O ₁₅		
Molecular Weight:	1042.22		
Target:	Interleukin Related; TNF Receptor; NOD-like Receptor (NLR)		
Pathway:	Immunology/Inflammation; Apoptosis		
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 : 125 mg/mL (119.94 mM; Need ultrasonic)

Concentration	Mass			
	1 mg	5 mg	10 mg	
1 mM	0.9595 mL	4.7975 mL	9.5949 mL	
5 mM	0.1919 mL	0.9595 mL	1.9190 mL	
10 mM	0.0959 mL	0.4797 mL	0.9595 mL	

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

BIOLOGICAL ACTIVITY

Description

HMGB1-IN-1 (compound 6) displays strong NO inhibitory effect in RAW264.7 cells with IC₅₀ value of 15.9 ± 0.6 μM. HMGB1-IN-1 inhibit the HMGB1/NF-κB/NLRP3 pathway. HMGB1-IN-1 shows good anti-inflammatory activity and good anti-sepsis effects in kidney injury^[1].

IC₅₀ & Target

IL-1β

NLRP3

In Vitro

HMGB1-IN-1 (compound 6) (0-30 μM, 0-48 h) not only decreases IL-1β and TNF-α levels in RAW264.7 cells and HK-2 cells, but also down-regulates the levels of NLRP3, P-NF-κB p65 and HMGB1 in activated HK-2 cells in a dose-dependent manner^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

HMGB1-IN-1 (compound 6) (15-30 mg/kg, intraperitoneal injection) shows good anti-inflammatory activity^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:

C57BL/6 mice (8-10 weeks old, 20±5 g)^[1]

Dosage:	15, 30 mg/kg
Administration:	Intraperitoneal injection, once a day for 7 consecutive days
Result:	Decreased the expression levels of IL-1 β to 70.1% at 15 mg/kg, and further decreased to 31.4% at 30 mg/kg. Downregulated TNF- α to 37.3%.

REFERENCES

[1]. Qiang X, et al. Synthesis of glycyrrhizin analogues as HMGB1 inhibitors and their activity against sepsis in acute kidney injury. Eur J Med Chem. 2023 Nov 5;259:115696.

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

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