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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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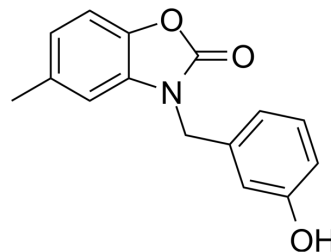
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MIF098

Cat. No.:	HY-147390
CAS No.:	1208448-95-6
Molecular Formula:	C ₁₅ H ₁₃ NO ₃
Molecular Weight:	255.27
Target:	Macrophage migration inhibitory factor (MIF)
Pathway:	Immunology/Inflammation
Storage:	4°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 180 mg/mL (705.14 mM; ultrasonic and warming and heat to 60°C)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	3.9174 mL	19.5871 mL	39.1742 mL
				5 mM	0.7835 mL	3.9174 mL	7.8348 mL
				10 mM	0.3917 mL	1.9587 mL	3.9174 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: ≥ 5 mg/mL (19.59 mM); Clear solution						
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 5 mg/mL (19.59 mM); Suspended solution; Need ultrasonic						
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 5 mg/mL (19.59 mM); Clear solution						

BIOLOGICAL ACTIVITY

Description	MIF098 is a macrophage migration inhibitory factor (MIF) antagonist. MIF098 inhibits proliferation, migration and fibrosis of pulmonary smooth muscle cells. MIF098 can be used for immunoinflammation-related disease research ^[1] .
In Vitro	MIF098 (0-10 μM, 48 h) inhibits mPASC cell proliferation and migration in a concentration-dependent manner, by blocking the migration inhibitory factor (MIF) pathway ^[1] . MIF098 reduces collagen synthesis and pulmonary artery fibrosis by inhibiting the TGFβ1/Smad2/3 pathway ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. Western Blot Analysis ^[1]

Cell Line:	Mouse pulmonary artery smooth muscle cells (mPASCs)
Concentration:	0-10 μ M
Incubation Time:	48 hours
Result:	Reduced expression of cell cycle related proteins such as cyclin D1, CDK4 and CDK6 in PDGF-BB and increased expression of cell-cycle arrest proteins such as P53 and P21. Reduced TGF β 1-induced fibronectin (FN), collagen I (col I), and collagen II (col II) expression and phosphorylation of Smad2 and Smad3.

In Vivo	MIF098 (intraperitoneal injection, 40 mg/kg, once a day, 4 weeks) attenuates the process of hypoxia-induced pulmonary arterial hypertension in C57BL/6J mice ^[1] .	
	MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Hypoxic male C57BL/6J mice ^[1]
	Dosage:	40 mg/kg
	Administration:	Intraperitoneal injection; once a day; 4 weeks
Result:	Reduced right ventricular systolic pressure (RVSP), percentage medial wall thickness, muscularization and right ventricle collagen deposition. Decreased percentage of collagen fibers in pulmonary artery (PA).	

REFERENCES

[1]. HuijingHuang, et al. The small molecule macrophage migration inhibitory factor antagonist MIF098, inhibits pulmonary hypertension associated with murine SLE. Int Immunopharmacol. 2019 Nov;76:105874.

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

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