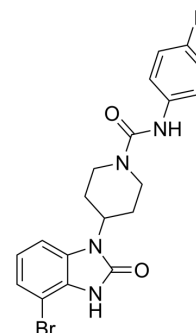


TH5487

Cat. No.:	HY-125276		
CAS No.:	2304947-71-3		
Molecular Formula:	C ₁₉ H ₁₈ BrIN ₄ O ₂		
Molecular Weight:	541.18		
Target:	Others		
Pathway:	Others		
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 : 25 mg/mL (46.20 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	1.8478 mL	9.2391 mL	18.4781 mL
		5 mM	0.3696 mL	1.8478 mL	3.6956 mL
10 mM		0.1848 mL	0.9239 mL	1.8478 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 (3.84 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	TH5487 is a potent 8-oxoguanine DNA glycosylase 1 (OGG1) inhibitor with an IC ₅₀ of 342 nM. TH5487 stops OGG1 from recognizing its DNA substrate, inhibits DNA repair and modifies OGG1 chromatin dynamics, which results in the inhibition of proinflammatory pathway genes ^[1] .
In Vitro	<p>TH5487 (5 μM; 1 hour) decreases TNFα- and LPS-induced proinflammatory gene expression to near pretreatment levels^[1]. ?TH5487 (0-10 μM; 1 hour) perturbs binding of NF-κB to 8-oxoG-containing synthetic DNA in nuclear extracts from MLE 12 or hSAEC cells^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>RT-PCR^[1]</p> <hr/> <p>Cell Line: Murine airway epithelial cell line (MLE 12); Diploid human small-airway epithelial cell</p>

	(hSAECs)
Concentration:	5 μ M
Incubation Time:	1 hour
Result:	Inhibited proinflammatory gene expression dose-dependently.
Western Blot Analysis ^[1]	
Cell Line:	Murine airway epithelial cell line (MLE 12); Diploid human small-airway epithelial cell (hSAECs)
Concentration:	2.5 μ M; 5 μ M; 10 μ M
Incubation Time:	1 hour
Result:	Decreased p50-p65 and p50-p50 expression in a dose dependent manner.
In Vivo	<p>TH5487 (prophylactic intraperitoneally injection; 8-30 mg/kg; 1-9 hours) decreases TNFα or LPS induced the robust recruitment of neutrophils to the airways, and reduces the pulmonary neutrophil count in a time-dependent manner^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>
	Animal Model: Eightweek-old female and male BALB/c mice ^[1]
	Dosage: 8 mg/kg, 15 mg/kg, 30 mg/kg
	Administration: Prophylactic intraperitoneally injection; 8-30 mg/kg; 1-9 hours
	Result: InterruptedTNF α -induced ongoing inflammatory processes.

CUSTOMER VALIDATION

- Cell Prolif. 2023 Feb 14;e13418.
- Cell Mol Life Sci. 2023 May 20;80(6):159.
- J Innate Immun. 2022 May 5;1-22.
- J Biol Chem. 2022 Dec 14;102798.
- Reprod Biol. September 2022, 100679.

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REFERENCES

[1]. Visnes T, et al. Small-molecule inhibitor of OGG1 suppresses proinflammatory gene expression and inflammation. Science. 2018 Nov 16;362(6416):834-839.

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

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