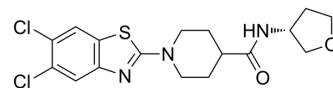


UT-11

Cat. No.:	HY-149202		
Molecular Formula:	C ₁₇ H ₁₉ Cl ₂ N ₃ O ₂ S		
Molecular Weight:	400.32		
Target:	PGE synthase		
Pathway:	Immunology/Inflammation		
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 : 25 mg/mL (62.45 mM; ultrasonic and warming and heat to 80°C)					
	Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
		Concentration				
		1 mM		2.4980 mL	12.4900 mL	24.9800 mL
		5 mM		0.4996 mL	2.4980 mL	4.9960 mL
10 mM		0.2498 mL	1.2490 mL	2.4980 mL		
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.5 mg/mL (6.25 mM); Clear solution; Need ultrasonic and warming and heat to 80°C					
	2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: 2.5 mg/mL (6.25 mM); Clear solution; Need ultrasonic and warming and heat to 80°C					

BIOLOGICAL ACTIVITY

Description	UT-11 is a potent and brain-permeable microsomal prostaglandin E synthase-1 (mPGES-1) inhibitor with IC ₅₀ s of 0.10 μM and 2.00 μM for inhibiting PGE ₂ production in human (SK-N-AS) and murine (BV2) cells, respectively ^[1] .	
In Vivo	UT-11 (10 mg/kg; i.p.; twice) dampens neuroinflammation in LPS (HY-D1056)-induced inflammation mouse model ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
	Animal Model:	Adult male C57BL/6 mice, LPS-induced inflammation model ^[1]
	Dosage:	10 mg/kg

Administration:	IP, at 30 min and 3 h after LPS
Result:	Significantly blunted the upregulation of mPGES-1 induced by LPS in the hippocampus. Blunted upregulation of other inflammatory genes (IL-6, TNF- α , CCL2, CCL3, CCL4) in the hippocampus.

REFERENCES

[1]. Sluter MN, et al. Novel, Brain-Permeable, Cross-Species Benzothiazole Inhibitors of Microsomal Prostaglandin E Synthase-1 (mPGES-1) Dampen Neuroinflammation In Vitro and In Vivo. ACS Pharmacol Transl Sci. 2023 Mar 21;6(4):587-599.

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

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