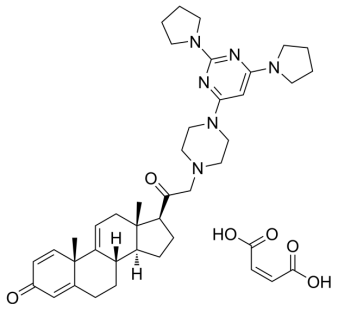
U-74389G

Cat. No.:	HY-106592A
CAS No.:	153190-29-5
Molecular Formula:	$C_{41}H_{54}N_6O_6$
Molecular Weight:	726.9
Target:	Others
Pathway:	Others
Storage:	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (137.57 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.3757 mL	6.8785 mL	13.7570 mL
	5 mM	0.2751 mL	1.3757 mL	2.7514 mL
	10 mM	0.1376 mL	0.6879 mL	1.3757 mL

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

BIOLOGICAL ACTIVITY

Description

U-74389G (PNU74389G meleate) is an antioxidant, can inhibit lipid peroxidation reactions. U-74389G can protect against ischemia-reperfusion injury and be widely used in animal models of ischemic injury and hypertension. U-74389G shows anti-inflammatory activity[1][2][3].

In Vitro

U-74389G (12.5, 25 and 50 μM; 24 h) inhibits nitrite production in endotoxin stimulated peritoneal macrophages[3].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[3]

Cell Line:	Peritoneal macrophages
Concentration:	12.5, 25 and 50 μM
Incubation Time:	24 hours
Result:	Reduced the nitrite concentrations in the supernatants of LPS-primed macrophages in a dose-dependent manner.

In Vivo

U-74389G (intravenous injection; 10 mg/kg; once daily; 6 d) treatment shows significant anti-inflammatory activity related to its ability to reduce colonic TNF-α, CMDI score, and improve weight change[2].

U-74389G (intravenous injection; 15 or 30 mg/kg) treatment significantly protects against lipopolysaccharide-induced lethality, reduces hypotension, ameliorates liver function, decreases plasma nitrite levels, restores the hyporeactivity of aortic rings to their control values and inhibits the activity of inducible NO synthase in the liver and in the aorta[3].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Rat model of trinitrobenzenesulfonic acid-induced colitis[2]
Dosage:	10 mg/kg
Administration:	Intravenous injection; 10 mg/kg; once daily; 6 d
Result:	Reduced TNF-α, the macroscopic index of mucosal damage score (CMDI) and increased body weight.

Animal Model:	Male Sprague–Dawley rats injected with Lipopolysaccharide[3]
Dosage:	15 or 30 mg/kg
Administration:	Intravenous injection; 15 or 30 mg/kg
Result:	Protected against lipopolysaccharide-induced lethality (90% survival rate 24 h and 80% 72 h after Lipopolysaccharide injection, respectively, following the highest dose).

REFERENCES

[1]. A M Perna, et al. Protection of rat heart from ischaemia-reperfusion injury by the 21-aminosteroid U-74389G. Pharmacol Res. 1996 Jul-Aug;34(1-2):25-31.

[2]. Georgios Antonios Margonis, et al. Effectiveness of sildenafil and U-74389G in a rat model of colitis. J Surg Res. 2015 Feb;193(2):667-74.

[3]. D Altavilla, et al. The lazaroid, U-74389G, inhibits inducible nitric oxide synthase activity, reverses vascular failure and protects against endotoxin shock. Eur J Pharmacol. 1999 Mar 12;369(1):49-55.

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