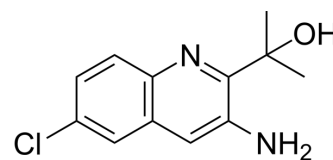


Reproxalap

Cat. No.:	HY-107150		
CAS No.:	916056-79-6		
Molecular Formula:	C ₁₂ H ₁₃ ClN ₂ O		
Molecular Weight:	236.7		
Target:	Others		
Pathway:	Others		
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 : 100 mg/mL (422.48 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	4.2248 mL	21.1238 mL	42.2476 mL
		5 mM	0.8450 mL	4.2248 mL	8.4495 mL
10 mM		0.4225 mL	2.1124 mL	4.2248 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (10.56 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.5 mg/mL (10.56 mM); Suspended solution; Need ultrasonic 				

BIOLOGICAL ACTIVITY

Description	Reproxalap (ADX-102) is an active aldehyde sequestering agent that's being researched for dry eye syndrome, allergic conjunctivitis, and non-infectious anterior uveitis. Reproxalap has anti-inflammatory and pain-relieving effects ^{[1][2][3]} .
In Vivo	<p>Reproxalap (30-100 mg/kg, once or twice a day) shows a dose-dependent reduction in pain-related behaviors in acute pain models^[1].</p> <p>Reproxalap (10 mg/kg, intraperitoneal injection, single dose) significantly reduces the formation of N-retinyl-phosphatidylethanolamine (A2E) in the retinas of mice with macular degeneration^[3].</p> <p>Reproxalap (25-50 μg, IVT, injected in five doses after LPS (HY-D1056) induction) can improve eye scores in uveitis rats^[3].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

Animal Model:	Carrageenan-induced and Complete Freund's Adjuvant (CFA)-induced models in mice ^[1]
Dosage:	30, 100 mg/kg; once a day or twice a day
Administration:	
Result:	<p>Was effective in thermal hyperalgesia in the CFA-induced model at both 100 mg/kg QD and BID doses; in the carrageenan-induced model, and was effective at 30 mg/kg BID and 100 mg/kg BID doses.</p> <p>Was effective in mechanical allodynia only in the CFA-induced model at a 100 mg/kg BID dose; in the carrageenan-induced model, was not effective.</p> <p>Had a mild effect on swelling in the CFA-induced model at 30 mg/kg BID and 100 mg/kg BID doses; in the carrageenan-induced model, had a mild effect at a 100 mg/kg QD dose.</p>
Animal Model:	A mouse knockout model (abcr ^{-/-}) of macular degeneration (MD) ^[3]
Dosage:	10 mg/kg; single dose
Administration:	Intraperitoneal injection (i.p.)
Result:	Reduced the formation of N-retinylidene-N-retinylethanolamine (A2E) in the retina by 71% without affecting dark adaptation or body weight.
Animal Model:	A rat model of lipopolysaccharide (LPS)-induced uveitis ^[3]
Dosage:	10 mg/kg 50 µg at hours 1, 3, 7, 10 and 17, after LPS induction, or injection 25 µg at 1 hour after LPS induction
Administration:	Intravitreal (IVT)
Result:	Improved the eye examination scores, enhancing the retinal-choroidal ratings.

REFERENCES

- [1]. Susan G. Macdonald, Ph.D., et al. Novel Small Molecule Aldehyde Sequestering Agents Demonstrate Broad Therapeutic Potential for Ocular Inflammation.
- [2]. Susan Macdonald, et al. ADX-102, a novel aldehyde trap, reduces nociceptive behavior in mouse models of carrageenan and CFA induced pain.
- [3]. Reproxalap Phase 2b Dry Eye Disease Results.

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

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