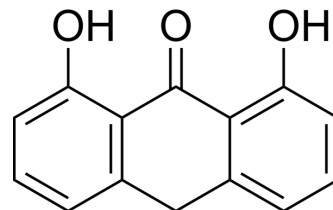


Dithranol

Cat. No.:	HY-B0738		
CAS No.:	1143-38-0		
Molecular Formula:	C ₁₄ H ₁₀ O ₃		
Molecular Weight:	226.23		
Target:	DNA/RNA Synthesis		
Pathway:	Cell Cycle/DNA Damage		
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 : 12.5 mg/mL (55.25 mM; ultrasonic and warming and heat to 60°C)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	4.4203 mL	22.1014 mL	44.2028 mL
		5 mM	0.8841 mL	4.4203 mL	8.8406 mL
10 mM		0.4420 mL	2.2101 mL	4.4203 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: 1 mg/mL (4.42 mM); Suspended solution; Need ultrasonic Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 1 mg/mL (4.42 mM); Suspended solution; Need ultrasonic Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 1 mg/mL (4.42 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	Dithranol (Anthralin) is an anthraquinone derivative, with potent anti-psoriatic effects. Dithranol can inhibit DNA replication and repair ^{[1][2]} .
In Vitro	<p>Dithranol (1.1 μM) inhibits replication in T98G cells by 50%^[2].</p> <p>∇Dithranol (0.1-0.5 μg/mL; 2-4 hours) increases the mRNA production of interleukin-10 receptors in a concentration dependent manner in HaCaT cells^[3].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

RT-PCR^[3]

Cell Line:	HaCaT cells
Concentration:	0.1 µg/mL, 0.25 µg/mL, 0.5 µg/mL
Incubation Time:	2 hours, 4 hours
Result:	Increased the mRNA production of interleukin-10 receptors in HaCaT cells.

REFERENCES

- [1]. L Kemény , et al. Dithranol: a review of the mechanism of action in the treatment of psoriasis vulgaris. *Skin Pharmacol.* 1990;3(1):1-20.
- [2]. J M Clark, et al. Inhibition of DNA replication and repair by anthralin or danthron in cultured human cells. *J Invest Dermatol.* 1982 Jul;79(1):18-22.
- [3]. A Farkas, et al. Dithranol upregulates IL-10 receptors on the cultured human keratinocyte cell line HaCaT. *Inflamm Res.* 2001 Jan;50(1):44-9.
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Caution: Product has not been fully validated for medical applications. For research use only.

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