**Proteins** 

# **Ethacridine lactate**

Cat. No.: HY-B2174 CAS No.: 1837-57-6 Molecular Formula: C18H21N3O4 Molecular Weight: 343.38 Target: Bacterial

Pathway: Anti-infection

Storage: 4°C, sealed storage, away from moisture

\* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

$$H_2N$$
  $N$   $N$   $N$ 

**Product** Data Sheet

### **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 50 mg/mL (145.61 mM; Need ultrasonic) H<sub>2</sub>O: 12.5 mg/mL (36.40 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.9122 mL	14.5611 mL	29.1223 mL
	5 mM	0.5824 mL	2.9122 mL	5.8245 mL
	10 mM	0.2912 mL	1.4561 mL	2.9122 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: ≥ 2.5 mg/mL (7.28 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (7.28 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (7.28 mM); Clear solution

## **BIOLOGICAL ACTIVITY**

Description	Ethacridine lactate (Acrinol) is a widely used antiseptic and abortifacient. Ethacridine lactate is effective against Staphylococcus aureus and other gram-positive cocci. Ethacridine lactate is also a poly(ADP-ribose) glycohydrolase (PARG) inhibitor <sup>[1][2][3]</sup> .
IC <sub>50</sub> & Target	poly(ADP-ribose) glycohydrolase (PARG) <sup>[2]</sup>
In Vitro	Acrinol is effective against S. aureus including MRSA, with the MICs ranging from 100-200 $\mu$ g/mL. The MIC of Acrinol for Eschericia coli is 200-800 $\mu$ g/mL, and it is over 1,600 $\mu$ g/mL for Proteus vulgaris and Proteus mirabilis <sup>[3]</sup> .

	MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	Ethacridine lactate can be used for termination of pregnancy <sup>[1]</sup> .  MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

### **CUSTOMER VALIDATION**

- Cell Rep. 2018 Oct 9;25(2):437-448.
- Elife. 2020 Dec 7;9:e61405.

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#### **REFERENCES**

- [1]. Rotin LE, et al. Erlotinib synergizes with the poly(ADP-ribose) glycohydrolase inhibitor ethacridine in acute myeloid leukemia cells. Haematologica. 2016 Nov;101(11):e449-e453.
- [2]. Gupta S, et al. Ethacridine lactate -- a safe and effective drug for termination of pregnancy. Indian J Matern Child Health. 1993;4(2):59-61.
- [3]. Usuki R, et, al. Antibacterial Activity of Acrinol against Organisms Isolated from Clinical Materials and Influence of Light on Antibacterial Activity of Acrinol. Japanese Journal of Pharmaceutical Health Care and Sciences. 2004 Jan; 30(2):72-77.

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

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