

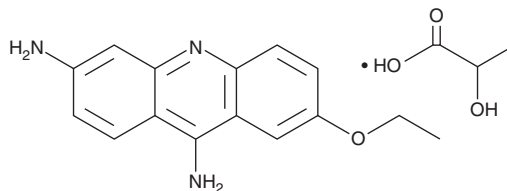
# PRODUCT INFORMATION



## Ethacridine (lactate)

Item No. 40282

**CAS Registry No.:** 1837-57-6  
**Formal Name:** 2-hydroxy-propanoic acid, compd. with  
7-ethoxy-3,9-acridinediamine (1:1)  
**Synonyms:** Acrinol, NSC 36333  
**MF:**  $C_{15}H_{15}N_3O \bullet C_3H_6O_3$   
**FW:** 343.4  
**Purity:**  $\geq 98\%$   
**Supplied as:** A solid  
**Storage:**  $-20^\circ\text{C}$   
**Stability:**  $\geq 4$  years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Ethacridine (lactate) is supplied as a solid. A stock solution may be made by dissolving the ethacridine (lactate) in the solvent of choice, which should be purged with an inert gas. Ethacridine (lactate) is soluble in DMSO. Ethacridine (lactate) is also soluble in water. We do not recommend storing the aqueous solution for more than one day.

### Description

Ethacridine is an inducer of uterine contraction.<sup>1</sup> It induces contractions in primary mouse myometrium smooth muscle cells when co-cultured with primary degranulated mast cells and in isolated and washed mouse uterine horns when used at a concentration of 10  $\mu\text{M}$ . Preincubation of viral particles with ethacridine (5  $\mu\text{M}$ ) reduces the viral titers of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in a plaque assay, as well as decreases the levels of intracellular and extracellular viral RNA and the intracellular levels of the nucleocapsid protein (N protein) and spike glycoprotein (S protein), in Vero E6 cells.<sup>2</sup> It decreases colony formation by, and induces apoptosis in, SW1736 and FTC-133 thyroid cancer cells when used at a concentration of 10  $\mu\text{M}$ .<sup>3</sup> Ethacridine reduces the levels of mRNA encoding the thyroid differentiation factors transcription termination factor 1 (TTF-1), paired box (Pax) protein 8 (Pax8), and sodium/iodide symporter (NIS) in Nthy-ori 3-1 thyroid follicular epithelial cells.

### References

1. Rudolph, M.I., de los Angeles García, M., Sepulveda, M., *et al.* Ethodin: Pharmacological evidence of the interaction between smooth muscle and mast cells in the myometrium. *J. Pharmacol. Exp. Ther.* **282**(1), 256-261 (1997).
2. Li, X., Lidsky, P.V., Xiao, Y., *et al.* Ethacridine inhibits SARS-CoV-2 by inactivating viral particles. *PLoS Pathog.* **17**(9), e1009898 (2021).
3. Huang, T.-S., Lee, J.-J., Li, Y.-S., *et al.* Ethacridine induces apoptosis and differentiation in thyroid cancer cells *in vitro*. *Anticancer Res.* **39**(8), 4095-4100 (2019).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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