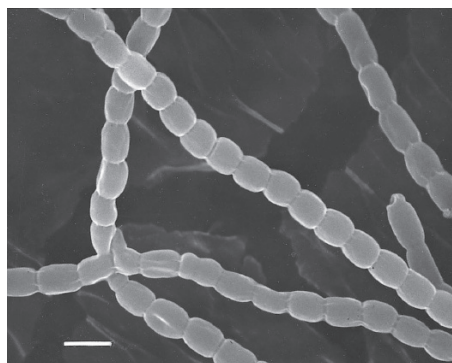


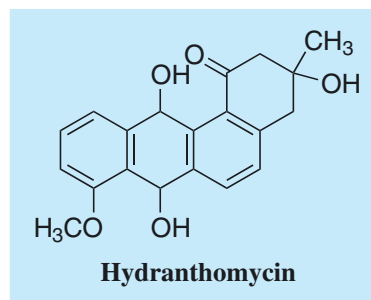
Hydranthomycin

1. Discovery, producing organism and structure¹⁾

Hydranthomycin was isolated from the culture broth of the actinomycete strain K93-5305 in the screening of herbicidal antibiotics using *Euglena gracilis*. It belongs to the benz[*a*]anthraquinone group.



Streptomyces sp. K93-5305



2. Physical data

Pale yellow powder. C₂₀H₂₀O₅; mol wt 340.38. Sol. in DMSO, MeOH, acetone, CHCl₃. Insol. in H₂O hexane.

3. Biological activity¹⁾

1) Herbicidal activity

	Amount of hydranthomycin (mg/ml)	Growth inhibition (% of control)
<i>Sorghum bicolor</i> (Sorghum)	1.0	97
	0.2	41
<i>Rhaphanus sativus</i> (Radish)	1.0	41
	0.2	41

2) Anti-*Euglena gracilis* activity

Hydranthomycin inhibited growth of *Euglena gracilis* at 1.0 mg/ml (96%) and 0.1 mg/ml (72%).

3) Other biological activity

Hydranthomycin showed moderate antifungal activity against *Pyricularia oryzae* (MIC of 25 μg/ml). It did not inhibit growth of the nematode *Caenorhabditis elegans* at 100 μg/ml.

4. Reference

- [598] Y. Tanaka *et al.*, *J. Antibiot.* **48**, 1525-1526 (1995)