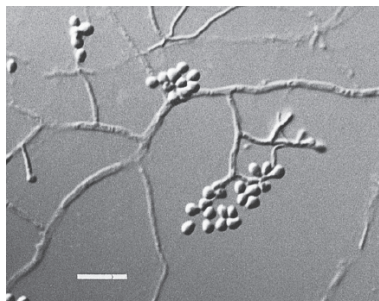


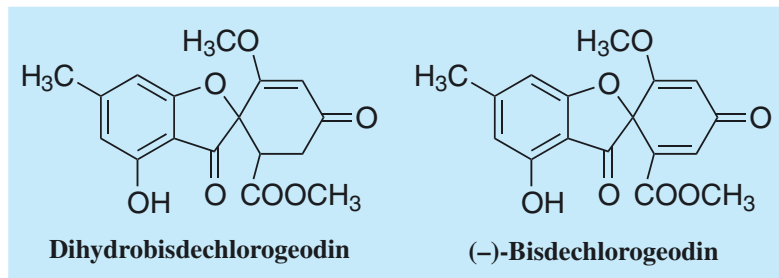
Dihydrobisdechlorogeodin

1. Discovery, producing organism and structures¹⁾

Dihydrobisdechlorogeodin, together with (–)-bisdechlorogeodin and sulchorin²⁾, was isolated from the culture broth of the fungal strain *Chrysosporium* sp. FO-4712, while screening for anti-*Bacillus subtilis* substances detectable in a Davis defined medium.



Chrysosporium sp. FO-4712
Bar: 10 μm



2. Physical data

White powder. C₁₇H₁₆O₇; mol wt 332. Sol. in acetone, EtOAc, CHCl₃.

3. Biological activities¹⁾

1) Antimicrobial activities

Antimicrobial activities of dihydrobisdechlorogeodin (**1**) and (–)-bisdechlorogeodin (**2**)

Test organism	Growth medium	Inhibition zone (mm)	
		1 (50 μg/disc)	2 (5 μg/disc)
<i>Bacillus subtilis</i> ATCC 6633	D	—	23.5
<i>Bacillus subtilis</i> ATCC 6633	N	—	17.2
<i>Staphylococcus aureus</i> ATCC 6538P	N	—	13.5
<i>Micrococcus luteus</i> ATCC 9341	N	—	12.5

D, Davis defined medium; N, nutrient agar; 8 mmφ thick disc was used.

The anti-*Bacillus* activity of (–)-bisdechlorogeodin antagonized by amino acids

Supplement	Inhibition zone (mm)
None	23.5
L-Alanine	12.0
L-Aspartic acid	13.5
L-Glutamic acid	13.5
Casamino acids	12.0

2) Herbicidal activities

Herbicidal activities of dihydrobisdechlorogeodin (**1**) and (–)-bisdechlorogeodin (**2**)

Test herb	Inhibition (%) of germination and proliferation	
	1	2
Radish (<i>Raphanus sativus</i>)	—	—
Sorghum (<i>Sorghum bicolor</i>)	60	70

Both samples were tested at 1000 μg/tube.

4. References

- [639] Y. Tanaka *et al.*, *J. Antibiot.* **49**, 1056-1059 (1996)
- A. Mahmoodian & C. E. Stickings, *Biochem. J.* **92**, 369-378 (1964)