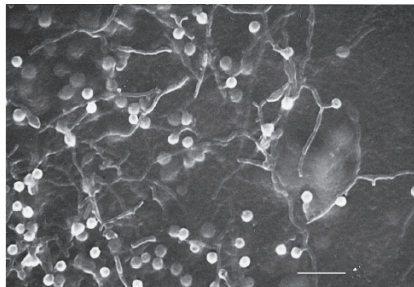


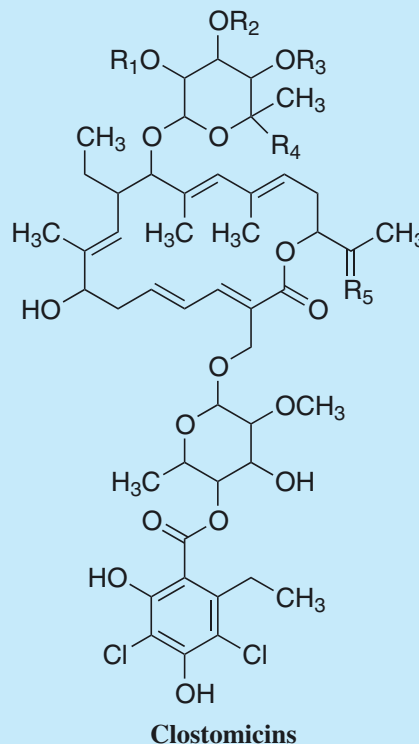
Clostomicin

1. Discovery, producing organism and structures¹⁻³⁾

Clostomicins were isolated from the culture broth of *Micromonospora echinospora* strain KMR-593^{T,2)}. Clostomicins are active against Gram-positive bacteria including anaerobes. The structural difference between each component was determined by NMR analysis.^{1,3)}



Micromonospora echinospora
subsp. *armeniaca* KMR-593^T
Bar: 5 μm



	R ₁	R ₂	R ₃	R ₄	R ₅
A	H	CO-i-Pro	H	CH ₃	OH, H
B₁	H	H	CO-i-Pro	CH ₃	OH, H
B₂	CO-i-Pro	H	H	CH ₃	OH, H
C	H	H	CO-i-Pro	H	O
D	H	H	CO-i-Pro	CH ₃	O

2. Physical data (Clostomicin B₁)¹⁾

White powder. C₅₂H₇₄Cl₂O₁₈; mol wt 1050.97. Sol. in benzene, hexane, MeOH.

3. Biological activity²⁾

Antimicrobial activity

Test organism	Diameter of inhibition zone (φ mm)*				
	A	B ₁	B ₂	C	D
<i>Staphylococcus aureus</i> FDA 209P	19	18	15	10	±
<i>Bacillus subtilis</i> PCI 219	20	19	15	14	11
<i>B. subtilis</i> PCI 219**	23	22	18	17	13
<i>Micrococcus luteus</i> ATCC 9341	20	18	17	19	17
<i>Mycobacterium smegmatis</i> ATCC 604	22	17	17	15	13
<i>Xanthomonas oryzae</i> KB 88	13	15	12	12	±
<i>Acholeplasma laidlawii</i> PG8	19	19	17	17	15
<i>Clostridium perfringens</i> ATCC 3624	37	37	33	33	32
<i>C. difficile</i> ATCC 9689	36	33	30	31	24

* Paper - disc (8 mmφ) method, 1 mg/ml solution

** Synthetic medium

4. References

- [351] S. Ōmura *et al.*, *J. Antibiot.* **39**, 1407-1412 (1986)
- [352] Y. Takahashi *et al.*, *J. Antibiot.* **39**, 1413-1418 (1986)
- J. E. Hochlowski *et al.*, *J. Antibiot.* **40**, 575-588 (1987)