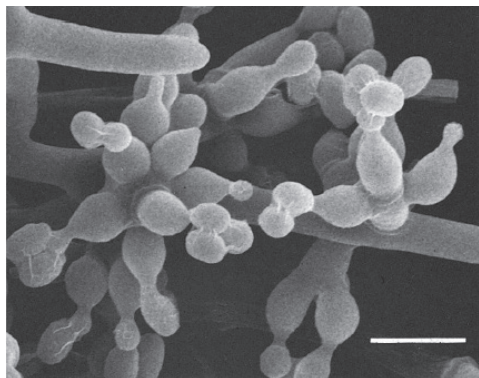


Pentenocin

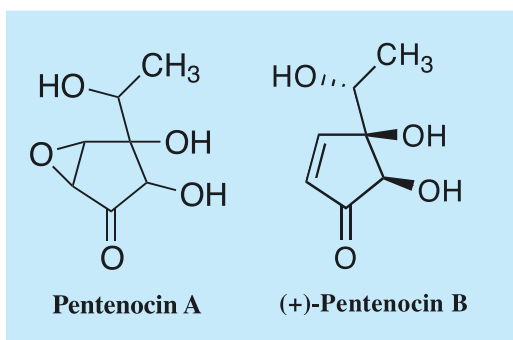
1. Discovery, producing organism and structures¹⁻²⁾

Pentenocins were isolated from the culture broth of *Trichoderma hamatum* strain FO-6903 and found to inhibit interleukin-1 β converting enzymes (ICE, caspase-1). They are cyclopentanone derivatives, and pentenocin A has an α,β -epoxyketone, while pentenocin B has an α,β -unsaturated ketone. The absolute configuration and the first total synthesis of pentenocin B was reported by Sugahara *et al.*²⁾ (see Appendix-1).



Trichoderma hamatum FO-6903

Bar: 5 μ m



2. Physical data (Pentenocin A)

Light brown resin. $C_7H_{10}O_5$; mol wt 174.15. Sol. in DMSO, H_2O . Insol. in EtOH, EtOAc, $CHCl_3$.

3. Biological activity¹⁾

Inhibitory activity of pentenocins against ICE

	IC ₅₀ (μ M)
Pentenocin A	575
Pentenocin B	250

4. Reference

- [725] T. Matsumoto *et al.*, *J. Antibiot.* **52**, 754-757 (1999)
- T. Sugahara *et al.*, *J. Org. Chem.* **69**, 1744-1747 (2004)