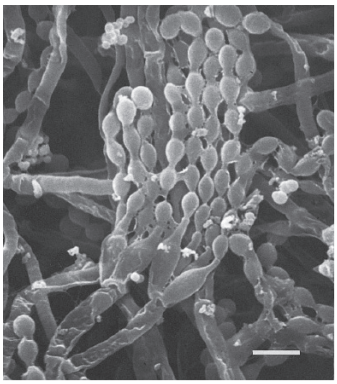
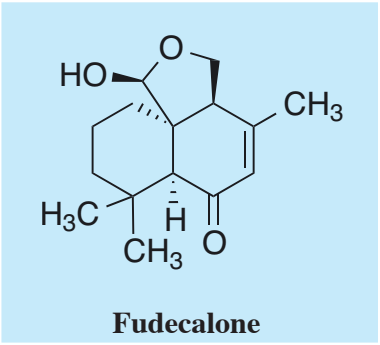
Fudecalone

1. Discovery, producing organism and structure[1,2)]

Fudecalone was isolated from the culture broth of the fungal strain *Penicillium* sp. FO-2030 and recognized as an anticoccidial substance in a cell-based assay. The relative configuration was revised by Kitahara *et al*.[2)], who also achieved the first total synthesis (See Appendix-I).



Penicillium sp. FO-2030
Bar: 5 μm



Fudecalone

2. Physical data[1,2)]

Colorless powder. $C_{15}H_{22}O_3$; mol wt 250.16. Sol. in MeOH, EtOH, $CHCl_3$, EtOH, EtOAc. Insol. in H_2O.

3. Biological activity[1)]

Anticoccidial activity was evaluated by an *in vitro* assay using BHK-21 cells as a host and monensin-resistant *Eimeria tenella* as a parasitic protozoan.

Compound	Minimum effective concentration (μM)		Specificity (C/A)
	Anticoccidial activity (A)*	Cytotoxicity (C)**	
Fudecalone	16	160	10

* No mature shizonts were observed at the indicated drug concentration or higher.
** No BHK-21 cells were observed at the indicated drug concentration or higher.

4. References

1. [563] N. Tabata *et al*., *J. Antibiot*. **48**, 53-58 (1995)
2. H. Watanabe *et al*., *Tetrahedron Lett*. **42** 917-919 (2001)