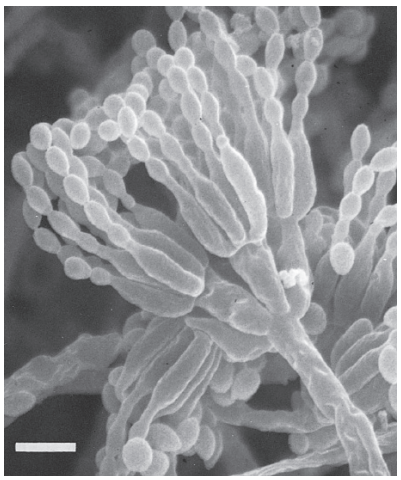
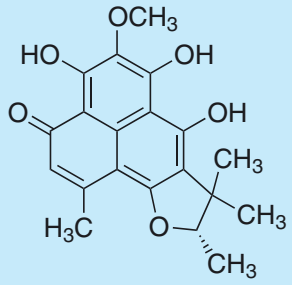
# Erabulenol

## 1. Discovery, producing organism and structure[1-3)]

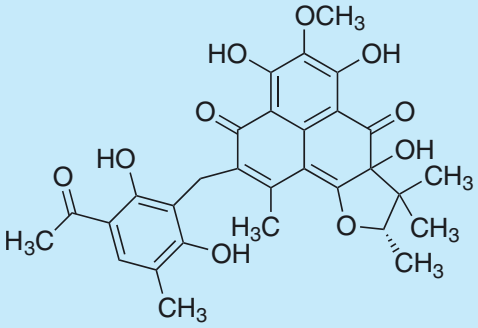
Erabulenols A and B were isolated from the culture broth of the fungal strain *Penicillium* sp. FO-5637 and recognized as inhibitors of cholesteryl ester transfer protein (CETP)[1,2)]. The strain also produced sclero-derolide[3)], which is structurally related to erabulenols.



*Penicillium* sp. FO-5637
Bar: 5 μm



**Erabulenol A**



**Erabulenol B**

## 2. Physical data (Erabulenol A)

Orange powder. $C_{20}H_{20}O_6$; mol wt 357.13. Sol. in EtOH, $CH_3CN$, MeOH, $CHCl_3$. Insol. in $H_2O$, hexane.

## 3. Biological activity[1)]

1) CETP inhibition

CETP promotes exchange and transfer of neutral lipids between plasma lipoproteins, which is considered a novel target in the prevention of atherosclerosis. The $IC_{50}$ values versus *in vitro* CETP activity for erabulenols A, B, and scleroderolide were 47.7, 58.2 and 94.5 $\mu$M, respectively.

2) Antimicrobial activity

Erabulenols (10 $\mu$g/6 mm disk) showed no antimicrobial activity against 16 standard microorganisms, although scleroderolide was active against *Bacillus subtilis*, *Staphylococcus aureus*, *Micrococcus luteus*, *Bacteroides fragilis* and *Pyricularia oryzae*.

3) Inhibition of HIV-1 integruse[4)]

Erabulenols inhibited HIV-1 integrase with an $IC_{50}$ values of 7.9 $\mu$m and sowed anti-HIV activity *in vitro* ($IC_{50}$=17$\mu$m)

## 4. References


1. [702] H. Tomoda *et al.*, *J. Antibiot.* **51**, 618-623 (1998)
2. [703] N. Tabata *et al.*, *J. Antibiot.* **51**, 624-628 (1998)
3. W. A. Ayer *et al.*, *Can. J. Chem.* **65**, 748-753 (1987)
4. [878] K. Shiomi *et al.*, *J. Antibiot.* **58**, 65-68 (2005)