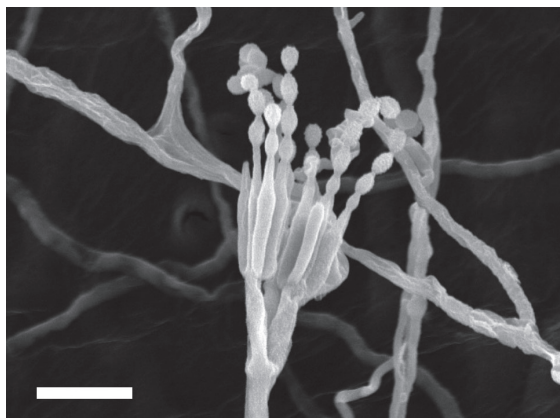


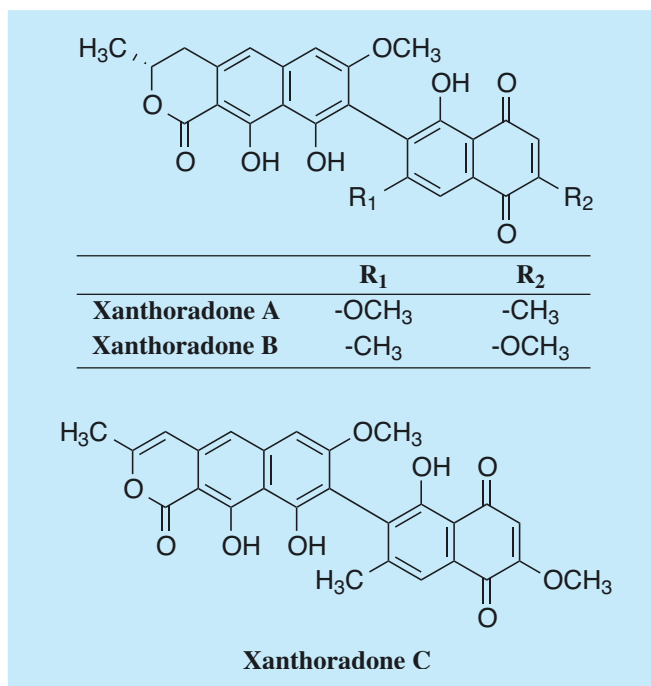
Xanthoradone

1. Discovery, producing organism and structures¹⁻³⁾

Xanthoradones A and B were isolated from the culture broth of *Penicillium radicum* (current name: *Talaromyces radicus*) FKI-3765-2, and shown to be potentiators of imipenem activity against MRSA. Both compounds have dihydronaphthopyrone and naphthoquinone moieties. Xanthoradone C was also isolated as a minor congener.³⁾



Penicillium radicum FKI-3765-2
(*Talaromyces radicus* FKI-3765-2)
Bar: 10 μm



2. Physical data (Xanthoradone A)

Orange crystal. C₂₇H₂₂O₉; mol wt 490.46. Sol. in MeOH, CHCl₃.

3. Biological activity¹⁾

1) The MIC value of imipenem against MRSA was reduced from 16 to 0.060 $\mu\text{g/ml}$ in combination with xanthoradone A.

In combination with	MIC of imipenem ($\mu\text{g/mL}$)	Potential ratio (None/xanthoradone)
None	16	1
Xanthoradone A	0.060	266
Xanthoradone B	0.030	533
Xanthoradone C	0.50	32

2) Xanthoradones A and B were both cytotoxic for Jurkat cells with IC₅₀ values of 23.2 and 2.6 $\mu\text{g/mL}$, respectively.

4. References

- [1045] H. Yamazaki *et al.*, *J. Antibiot.* **62**, 431-434 (2009)
- [1046] H. Yamazaki *et al.*, *J. Antibiot.* **62**, 435-437 (2009)
- [1068] H. Yamazaki *et al.*, *J. Antibiot.* **63**, 329-330 (2010)