Wickerol

1. Discovery, producing organism and structure¹⁾

A new anti-influenza antibiotics, wickerols, were isolated from the culture broth of *Trichoder-ma atroviride* FKI-3737. Wickerols have a unique 3H-5a,9-methanocycloocta[*cd*]indene skeleton (fused 6-5-6-6 ring system), which were confirmed by X-ray crystallographic analysis of wickerol A for the relative stereochemistry.



Trichoderma atroviride FKI-3737 Bar: 5 μm

2. Physical data (Wickerol A)¹⁾

White powder. $C_{20}H_{34}O$; mol wt 290.48. Sol. in EtOH, acetone, CHCl₃, *n*-hexane. Slightly sol. in MeOH, 2-PrOH. Insol. in H₂O.

3. Biological activity¹⁾

Wickerol A inhibited the growth of influenza virus A/PR/8/34 in MDCK cells at the IC_{50} value of 70 ng/ml, while it inhibited the growth of the host MDCK cells at the IC_{50} value of 7,100 ng/ml.

4. References

1. [1125] T. Yamamoto et al., Tetrahedron 68, 9267-9271 (2012)