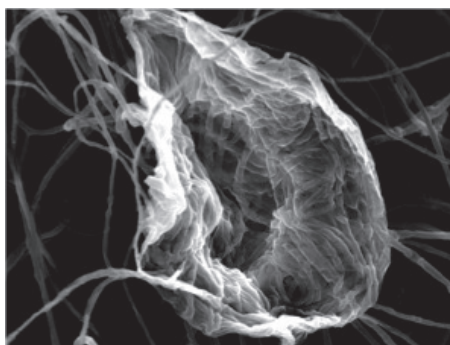


Mangromicin

1. Discovery, producing organism and structures¹⁻³⁾

Mangromicins (A-I) were discovered in a culture broth of an actinomycete strain, *Lechevalieria aerocolonigenes* K10-0216, by Physicochemical Screening. They consist of cyclopentadecane skeletons with a 5,6-dihydro-4-hydroxy-2-pyrone moiety. Mangromicins A and B exhibited anti-trypanosomal activity.¹⁾ All the mangromicins possess anti-oxidative activity.²⁻³⁾



Lechevalieria aerocolonigenes K10-0216

2. Physical data (Mangromicin A)

White powder. C₂₂H₂₄O₇

mol wt 410.50.

Sol. in MeOH, EtOH,

Insol. in benzene, CHCl₃

3. Biological activity¹⁾

1) *In vitro* antitrypanosomal activity¹⁾

Mangromicins A and B exhibit *in vitro* antitrypanosomal activity against *Trypanosoma brucei* brucei GuTat3.1 with IC₅₀ values of 2.4 and 43.4 μg/mL, respectively.

2) *In vitro* anti-oxidative activity^{2,3)}

Mangromicins show radical scavenging activity against 1,1-diphenyl-2-picrylhydrazyl (DPPH) free radicals and nitric oxide generated from lipopolysaccharide-stimulated RAW264.7 cells. Mangromicins A and I showed the most potent DPPH radical scavenging activity (IC₅₀: 2.4 μM) and nitric oxide scavenging activity, respectively.

4. References

- [1163] T. Nakashima *et al.*, *J. Antibiot.* **67**, 253-260 (2014)
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- [1179] T. Nakashima *et al.*, *J. Antibiot.* **68**, 220-222 (2015)

