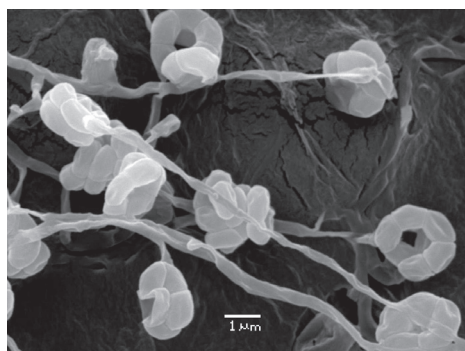


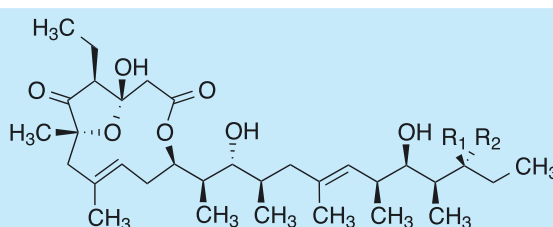
# Actinoallolide

## 1. Discovery, producing organism and structure<sup>1)</sup>

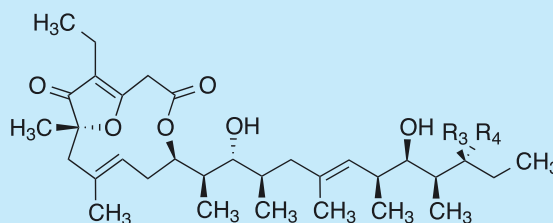
Actinoallolides A-E were discovered in a the culture broth of *Actinoallomurus fulvus* MK10-036 by physicochemical screening. Actinoallolides A-D are 12-membered macrolides showing potent *in vitro* antitrypanosomal activity against the Trypanosomes, *Trypanosoma brucei rhodesiense* and *Trypanosoma cruzi*, which cause disease in human, as well as *Trypanosoma brucei brucei* which cause disease in livestock.



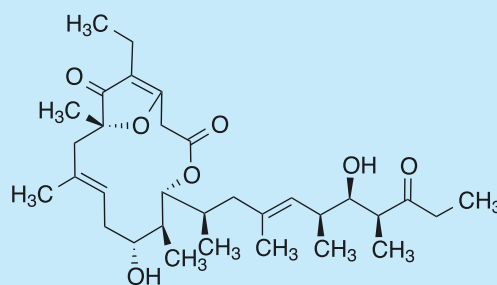
*Actinoallomurus fulvus* MK10-036



	R <sub>1</sub>	R <sub>2</sub>
Actinoallolide A		=O
Actinoallolide B	OH	H



	R <sub>3</sub>	R <sub>4</sub>
Actinoallolide C		=O
Actinoallolide D	OH	H



Actinoallolide E

## 2. Physical data (Actinoallolide A)<sup>1)</sup>

Yellow powder. C<sub>32</sub>H<sub>52</sub>O<sub>8</sub>;  
mol wt 276.37. Sol. in MeOH, CHCl<sub>3</sub>.

## 3. Biological activity<sup>1)</sup>

1) Actinoallolides displayed *in vitro* anti-trypanosomal activity against *T. b. brucei* GuTat3.1 strain with IC<sub>50</sub> values ranging from 0.0049 to 1.01 μg/mL. Among them, actinoallolide A showed the most potent activity with an IC<sub>50</sub> value of 0.0049 μg/mL without cytotoxicity.

2) Actinoallolide A showed *in vitro* antitrypanosomal activity against *T. b. rhodesiense* STIB900 and *T. cruzi* Tulahuen C4C8 with IC<sub>50</sub> values of 0.086 and 0.226 μg/mL, respectively.

## 4. References

- [ ] Y. Inahashi *et al.*, *Org. Lett.*, **17**, 864-867 (2015)