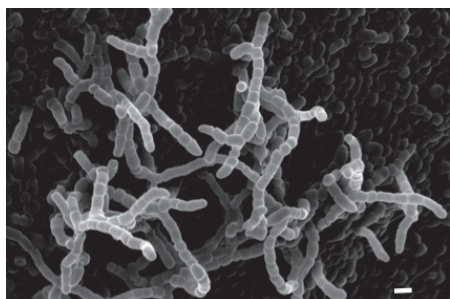


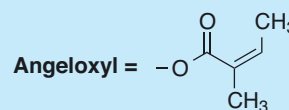
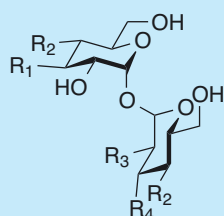
# Trehangelin

## 1. Discovery, producing organism and structure<sup>1,2)</sup>

Trehangelins A-C were isolated from the culture broth of an endophytic actinomycete strain, *Polymorphospora rubra* K07-0510 by Physicochemical Screening. Both trehangelins A and B showed inhibitory activity against hemolysis of red blood cells induced by light-activated pheophorbide *a*.



*Polymorphospora rubra* K07-0510



	R <sub>1</sub>	R <sub>2</sub>	R <sub>3</sub>	R <sub>4</sub>
Trehangelin A	Angeloxyl	-OH	-OH	Angeloxyl
Trehangelin B	Angeloxyl	-OH	Angeloxyl	-OH
Trehangelin C	-OH	Angeloxyl	-OH	-OH

## 2. Physical data (Trehangelin A)

White powder. C<sub>22</sub>H<sub>34</sub>O<sub>13</sub>; mol wt 506.50. Sol. in MeOH, H<sub>2</sub>O. Insol. in, CHCl<sub>3</sub>, *n*-hexane.

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

1) Inhibition of hemolysis of red blood cells induced by light-activated pheophorbide *a*

Trehangelins A and C demonstrated hemolysis inhibition, with IC<sub>50</sub> values of 0.1 and 0.4 mg/mL, respectively, which is comparable to ascorbic acid (IC<sub>50</sub>: 0.4 mg/mL). All compounds had no effect on RBCs in the absence of light, even at 1 mg/mL.

2) Cytotoxicity

Trehangelins had no effect against several cell lines (HEK-293FT, Panc-1, NCI-H1299 and HT-29) even at 100 μg/mL.

## 4. References

- [1142] T. Nakashima *et al.*, *J. Antibiot.* **66**, 311-317 (2013)