Syringomycin E (SR-E) is a phytotoxin of the cyclic lipodepsinonapeptides class, composed of a 3-hydroxy fatty acid tail attached to a polar peptide head that contains nine amino acid residues. It is a potent biosurfactant toxic to many plants and fungi and is implicated as a virulence factor in several major plant diseases like holcus spot disease of maize and bacterial canker of stone fruits. It has been shown to inhibit the growth of several yeast strains including Rhodotorula pilimanae and Saccharomyces cerevisiae and is also effective against human pathogenic fungi. SR-E targets the plant and fungal plasma membrane altering several of its functions such as membrane potential, protein phosphorylation, H^+ -ATPase activity, and ion fluxes. All of these effects are related to SR-E pore formation in the host membrane. At least six molecules of SR-E compose a channel with a radius of ~1 nm and individual channels can become aggregated into clusters that exhibit synchronous opening and closing. Remarkably, the host membrane composition influences the sensitivity to SR-E and membrane lipids directly participate in the channel gating. SR-E is reported to cause lysis of erythrocytes of different origin.

Purity: >95% by HPLC

Reagent
Supplied as a 0.5 mg/mL solution in 1 mM HCl

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability
Store at −20 °C. Under these conditions, the product is stable for 18 months.

References
