

# Components and Antioxidant Activity of the Polysaccharide from *Streptomyces virginia* H03

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A polysaccharide was isolated from the broth of cultured *Streptomyces virginia* H03 which was treated by ethanol deposition and savage method to remove the protein, and was purified using Sephadex G-150 column chromatography. The components of the polysaccharide were determined by gas chromatography. The purified polysaccharide was made up of mannose, glucose and galactose, in a 2:1:1 proportion. Its average apparent molecular weight was  $3.76 \cdot 10^4$  Da which was determined by gel permeation chromatography. In addition, several antioxidant assays were adopted to investigate the antioxidant activity of the polysaccharide *in vitro*. The results indicated that the purified polysaccharide showed significant antioxidant activity against superoxide anion, hydrogen peroxide and 1,1-diphenyl-2-picrylhydrazyl radical, and lipid peroxidation as with standard antioxidants such as vitamin C. Furthermore, the polysaccharide had a better heat stability than vitamin C, which suggested that the polysaccharide might be a potent useful antioxidant.

*Key words:* Polysaccharide, Antioxidant Activity, *Streptomyces virginia* H03