Synthesis and Application of Poly-(-glutamic Acid-Vitamin C Conjugate

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Poly-(-glutamic acid ((-PGA) derived from *Bacillus subtilis* chungkookjang is a biodegradable, biocompatible and water soluble material. Thus, poly-(-glutamic acid can be applied for a thickener, humectant and matrices of drug delivery on the basis of its unique properties. This study deals with synthesis, antioxidant properties and the enzyme inhibition of poly-(-glutamic acid-Vitamin C conjugate. A structure of synthesized (-PGA-vitaminC was confirmed by NMR. The resulting conjugate showed good scavenging activity toward superoxide anion radical and inhibition of xanthine oxidase and collagenase activity. The highlights of these studies and their industrial applications will be shown and discussed.

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