

Accepted Manuscript

Title: Characterization and biological activity of PVA hydrogel containing chitooligosaccharides conjugated with gallic acid

Authors: Hyeon-Ho Park, Seok-Chun Ko, Gun-Woo Oh, Yu-Mi Jang, Young-Mog Kim, Won Sun Park, Il-Whan Choi, Won-Kyo Jung



PII: S0144-8617(18)30724-0
DOI: <https://doi.org/10.1016/j.carbpol.2018.06.070>
Reference: CARP 13744

To appear in:

Received date: 26-2-2018
Revised date: 30-4-2018
Accepted date: 14-6-2018

Please cite this article as: Park H-Ho, Ko S-Chun, Oh G-Woo, Jang Y-Mi, Kim Y-Mog, Park WS, Choi I-Whan, Jung W-Kyo, Characterization and biological activity of PVA hydrogel containing chitooligosaccharides conjugated with gallic acid, *Carbohydrate Polymers* (2018), <https://doi.org/10.1016/j.carbpol.2018.06.070>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Characterization and biological activity of PVA hydrogel containing chitooligosaccharides conjugated with gallic acid

Hyeon-Ho Park^a, Seok-Chun Ko^b, Gun-Woo Oh^{a,b}, Yu-Mi Jang^c, Young-Mog Kim^c, Won Sun Park^d, Il-Whan Choi^e and Won-Kyo Jung^{a,b,*}

^aDepartment of Biomedical Engineering, and Center for Marine-Integrated Biomedical Technology (BK21 Plus) Pukyong National University, Busan 48513, Republic of Korea

^bMarine-Integrated Bionics Research Center, Pukyong National University, Busan 48513, Republic of Korea

^cDepartment of Food Science and Technology, Pukyong National University, Busan 48513, Republic of Korea

^dDepartment of Physiology, Kangwon National University, School of Medicine, Chuncheon, Gangwon 24341, Republic of Korea

^eDepartment of Microbiology, Inje University College of Medicine, Busan 47392, Republic of Korea

*Corresponding author. W. K. Jung (Tel: +82-51-629-5775; Fax: +82-51-629-5775)

E-mail address: W.K.Jung (wkjung@pknu.ac.kr)

Highlights

- This study was to conjugate the chitooligosaccharide (COS) with gallic acid (GA).
- COS-GA conjugated COS with GA by the hydrogen peroxide-mediated method.
- COS-GA showed an excellent antibacterial activity against *Propionibacterium acnes*.
- PVA hydrogel with COS conjugates fabricated by the freeze-thaw method.
- PVA hydrogel with COS-GA conjugates exerted antimicrobial action.

Download English Version:

<https://daneshyari.com/en/article/7781376>

Download Persian Version:

<https://daneshyari.com/article/7781376>

[Daneshyari.com](https://daneshyari.com)