Accepted Manuscript

Title: Acylation of soluble polysaccharides in a biphasic

system catalyzed by a CE2 acetyl esterase

Authors: Maria Kanelli, Evangelos Topakas

PII: S0144-8617(17)30068-1

DOI: http://dx.doi.org/doi:10.1016/j.carbpol.2017.01.057

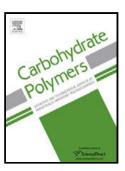
Reference: CARP 11935

To appear in:

Received date: 1-12-2016 Revised date: 8-1-2017 Accepted date: 16-1-2017

Please cite this article as: Kanelli, Maria., & Topakas, Evangelos., Acylation of soluble polysaccharides in a biphasic system catalyzed by a CE2 acetyl esterase. *Carbohydrate Polymers* http://dx.doi.org/10.1016/j.carbpol.2017.01.057

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.



ACCEPTED MANUSCRIPT

Acylation of soluble polysaccharides in a biphasic system catalyzed by a CE2 acetyl esterase

Maria Kanelli and Evangelos Topakas*

IndBioCat Group, Biotechnology Laboratory, School of Chemical Engineering, National

Technical University of Athens, 5 Iroon Polytechniou Str., Zografou Campus, Athens 15780,

Greece

*Correspondence to: E. Topakas. Tel: +30-210-7723264; fax: +30-210-7723163; e-mail: vtopakas@chemeng.ntua.gr

Highlights

- A biphasic system was utilized for the regioselective transesterification reactions
- CtCE2 is capable of acylating soluble polysaccharides in an aqueous medium
- Acylation degree varied from 0.022 to 1.083 mmol_{acyl group}*g_{polysaccharide}-1
- Monosaccharides acquired acylation yields from 11 up to 65 %
- Monoacylation was favored in disaccharides exhibiting yields from 23 up to 58 %

Download English Version:

https://daneshyari.com/en/article/5157044

Download Persian Version:

https://daneshyari.com/article/5157044

Daneshyari.com