

Accepted Manuscript

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PII: S0168-1656(17)30132-3
DOI: <http://dx.doi.org/doi:10.1016/j.jbiotec.2017.03.027>
Reference: BIOTEC 7835

To appear in: *Journal of Biotechnology*

Received date: 28-10-2016
Revised date: 21-3-2017
Accepted date: 23-3-2017

Please cite this article as: Rivero, Cintia W., De Benedetti, Eliana C., Gallego, Fernando López, Pessela, Benevides C., Guisán, José M., Trelles, Jorge A., Biosynthesis of an antiviral compound using a stabilized phosphopentomutase by multipoint covalent immobilization. *Journal of Biotechnology* <http://dx.doi.org/10.1016/j.jbiotec.2017.03.027>

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Biosynthesis of an antiviral compound using a stabilized phosphopentomutase by multipoint covalent immobilization

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Graphical Abstract

Phosphopentomutase from *E. coli* ATCC 4157 has been stabilized by addition of glycerol (10%, v/v), allowing for the first time their immobilization at pH 10 on glyoxyl support.

This kind of immobilization enabled to improve thermal stability of PPM favoring its application in the biosynthesis of a commonly used antiviral compound.

An efficient one-pot bioprocess based on a bi-enzyme system was developed, and meets the requirements of high stability and short reaction times needed for low cost production in a future preparative application.

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