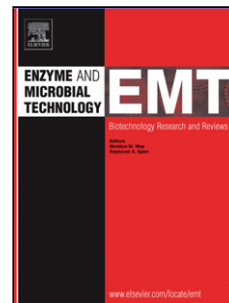


Accepted Manuscript

Title: Characterization of a topologically unique oxygenase from *Sphingobium* sp. PNB capable of catalyzing a broad spectrum of aromatics

Authors: Pratick Khara, Madhumita Roy, Joydeep Chakraborty, Arindam Dutta, Tapan K. Dutta



PII: S0141-0229(17)30193-X
DOI: <https://doi.org/10.1016/j.enzmictec.2017.10.006>
Reference: EMT 9145

To appear in: *Enzyme and Microbial Technology*

Received date: 1-3-2017
Revised date: 25-8-2017
Accepted date: 16-10-2017

Please cite this article as: Khara Pratick, Roy Madhumita, Chakraborty Joydeep, Dutta Arindam, Dutta Tapan K. Characterization of a topologically unique oxygenase from *Sphingobium* sp. PNB capable of catalyzing a broad spectrum of aromatics. *Enzyme and Microbial Technology* <https://doi.org/10.1016/j.enzmictec.2017.10.006>

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 of a topologically unique oxygenase from *Sphingobium* sp. PNB capable of catalyzing a broad spectrum of aromatics

Pratick Khara¹, Madhumita Roy, Joydeep Chakraborty², Arindam Dutta and Tapan K. Dutta *

Department of Microbiology, Bose Institute, Kolkata 700054, India

¹ Present address: Department of Microbiology, Molecular Genetics & Immunology, University of Kansas Medical Center, United States.

² Present address: Laboratory of Environmental Biochemistry, Biotechnology Research Center, The University of Tokyo, Japan.

***Corresponding author:** Department of Microbiology, Bose Institute, P-1/12 CIT Scheme VII M, Kolkata 700054, India.

Tel: +91 33 2569 3241; Fax: +91 33 2355 3886

E-mail address: tapan@jcbose.ac.in (T.K. Dutta)

Highlights

- Characterization of polycyclic aromatic hydrocarbon dioxygenase in *Sphingobium* sp.
- *In silico* analysis of large catalytic pocket and unique substrate access channel
- Cloning and expression of multi-component dioxygenase
- Evaluation of broad substrate specificity, guided by molecular docking analysis

Download English Version:

<https://daneshyari.com/en/article/6488171>

Download Persian Version:

<https://daneshyari.com/article/6488171>

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