### **Accepted Manuscript**

Title: Complete genome sequence of *Arthrobacter sp*. ERGS1:01, a putative novel bacterium with prospective cold active industrial enzymes, isolated from East Rathong glacier in India

Author: Rakshak Kumar Dharam Singh Mohit Kumar Swarnkar Anil Kumar Singh Sanjay Kumar

PII: S0168-1656(15)30132-2

DOI: http://dx.doi.org/doi:10.1016/j.jbiotec.2015.09.025

Reference: BIOTEC 7252

To appear in: Journal of Biotechnology

Received date: 18-9-2015 Accepted date: 22-9-2015

Please cite this article as: Kumar, Rakshak, Singh, Dharam, Swarnkar, Mohit Kumar, Singh, Anil Kumar, Kumar, Sanjay, Complete genome sequence of Arthrobacter sp.ERGS1:01, a putative novel bacterium with prospective cold active industrial enzymes, isolated from East Rathong glacier in India.Journal of Biotechnology http://dx.doi.org/10.1016/j.jbiotec.2015.09.025

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

Complete genome sequence of *Arthrobacter sp.* ERGS1:01, a putative novel bacterium with prospective cold active industrial enzymes, isolated from East Rathong glacier in India

Rakshak Kumar <sup>\*,#</sup>, Dharam Singh<sup>#</sup>, Mohit Kumar Swarnkar, Anil Kumar Singh, Sanjay Kumar

Biotechnology Division, CSIR-Institute of Himalayan Bioresource Technology, Post Box No. 06, Palampur –176 061, Himachal Pradesh, India.

E-mail: rakshak@ihbt.res.in (R. K.)

Tel.: +91 1894 233339 (ext. 441)

Fax: +91 1894 230433

#### Highlights

- *Arthrobacter* sp. ERGS1:01 is putative novel bacterium isolated from an unexplored alpine region of Sikkim Himalaya in India.
- The bacterium survived at low temperature (5 °C) and actively produced biocatalysts such as amylase, lipase and protease.
- Complete genome of a circular chromosome composed of 4,030,317 bp and two extra chromosomal DNA (754 kb and 152 kb) with 65.37% GC content, 4623 predicted coding sequences and 72 RNAs.
- To our knowledge this is the first report on complete genome sequence and any bacterial species reported from East Rathong glacier that also shed lights on cold adaptive features.

<sup>\*</sup>Equal Contribution

<sup>\*</sup>Corresponding author

#### Download English Version:

# https://daneshyari.com/en/article/6490876

Download Persian Version:

https://daneshyari.com/article/6490876

<u>Daneshyari.com</u>