## **Accepted Manuscript**

Cloning, expression and purification of virB10 protein of *Brucella melitensis* and to evaluate its role as a serological marker for *Brucella* infection in experimental and natural hosts

Prachi Pathak, Ashu Kumar, Prabhu Prasad Sarangi, Sameer Bhagyawant, Duraipandian Thavaselvam

PII: \$1046-5928(17)30510-7

DOI: 10.1016/j.pep.2017.12.014

Reference: YPREP 5206

To appear in: Protein Expression and Purification

Received Date: 18 August 2017

Revised Date: 13 December 2017 Accepted Date: 30 December 2017

Please cite this article as: P. Pathak, A. Kumar, P.P. Sarangi, S. Bhagyawant, D. Thavaselvam, Cloning, expression and purification of virB10 protein of *Brucella melitensis* and to evaluate its role as a serological marker for *Brucella* infection in experimental and natural hosts, *Protein Expression and Purification* (2018), doi: 10.1016/j.pep.2017.12.014.

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

- 1 Cloning, expression and purification of virB10 protein of Brucella melitensis
- 2 and to evaluate its role as a serological marker for Brucella infection in
- 3 experimental and natural hosts
- 4 Prachi Pathak<sup>a</sup>, Ashu Kumar<sup>a</sup>, Prabhu Prasad Sarangi<sup>b</sup>, Sameer Bhagyawant<sup>c</sup>,
- 5 \*Duraipandian Thavaselvam a
- <sup>a</sup>Defence Research and Development Establishment, Jhansi Road, Gwalior 474002
- <sup>7</sup> Defence Institute of High Altitude Research, Leh
- 8 <sup>c</sup> School of sciences in Biotechnology, Jiwaji University, Gwalior -
- 9 \*Corresponding Author
- 10 Dr. Duraipandian Thavaselvam, Scientist 'F'
- 11 Defence Research and Development Establishment,
- 12 Jhansi Road, Gwalior 474002
- Email dtselvam@drde.drdo.in, dtselvam@rediffmail.com

14 Abstract

Brucellosis is a zoonotic disease caused by various species of the genus Brucella. The 15 control of disease mainly depends on its accurate and early diagnosis. Culture methods 16 employed for diagnosis are time consuming and require well equipped biosafety level 3 17 laboratories and hence serological tests are favored alternative for brucellosis 18 diagnosis. At present serological diagnosis is based on LPS (lipopolysaccharide) which 19 is less specific as the LPS antigen of Brucella species shows cross reactivity with other 20 gram-negative bacteria. There is a need to develop serological diagnostic assay based 21 on purified recombinant antigen of Brucella. T4SS (Type IV Secretion System) is an 22 important virulent factor of Brucella and required for infection suggesting their 23

## Download English Version:

## https://daneshyari.com/en/article/8359530

Download Persian Version:

https://daneshyari.com/article/8359530

Daneshyari.com