Accepted Manuscript

Title: A rapid high-resolution melting method for differentiation of *Leishmania* species targeting *lack* gene

Authors: Kuang Ziwei, Zhang Chunying, Pang Huasheng, Ma

Ying

PII: S0001-706X(17)31090-2

DOI: https://doi.org/10.1016/j.actatropica.2017.10.016

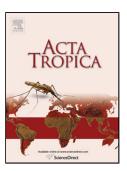
Reference: ACTROP 4477

To appear in: Acta Tropica

Received date: 11-9-2017 Revised date: 13-10-2017 Accepted date: 16-10-2017

Please cite this article as: Ziwei, Kuang, Chunying, Zhang, Huasheng, Pang, Ying, Ma, A rapid high-resolution melting method for differentiation of Leishmania species targeting lack gene. Acta Tropica https://doi.org/10.1016/j.actatropica.2017.10.016

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.



A Rapid High-Resolution Melting Method for Differentiation of

Leishmania Species Targeting lack gene

Kuang Ziwei, Zhang Chunying, Pang Huasheng, Ma Ying *

Corresponding author: Ma Ying

majiying72@hotmail.com

Department of Laboratory medicine, West China Hospital, Sichuan University, Chengdu 610041, China

Abstract

Objectives: The aim of this research is to verify that if *lack* gene can be used for

differentiation of Leishmania under HRM assay.

Methods: Two specific primers were designed targeting polymorphic sites on the

lack gene sequence. DNA from promastigotes of six species of Leishmania based on

reference strains were tested following a HRM protocol. We also tested ten Chinese

isolates in blind to validate our method.

Results: Combined with amplicon of the two primers, the six reference strains can be

easily discriminated without the effect of initial concentration of DNA templates. Ten

Chinese isolates detected by our HRM method resulted in full accord with the

standard identification results in previous study.

Conclusion: HRM is a rapid and reproducible method to discriminate different

Leishmania species and lack gene is a potential novel biological characteristic for

easy differentiation of Leishmania isolates in China.

Keywords: *Leishmania* species, high-resolution melting, *lack* gene, leishmaniasis

1. Introduction

Caused by more than 20 species of *Leishmania*, Leishmaniasis is prevalent in many

Download English Version:

https://daneshyari.com/en/article/8744434

Download Persian Version:

https://daneshyari.com/article/8744434

<u>Daneshyari.com</u>