

Accepted Manuscript

Reverse transcription loop-mediated isothermal amplification for rapid and quantitative assay of covert mortality nodavirus in shrimp

Qingli Zhang, Shuang Liu, Haolin Yang, Luoluo Zhu, Xiaoyuan Wan, Xiaoping Li, Jie Huang

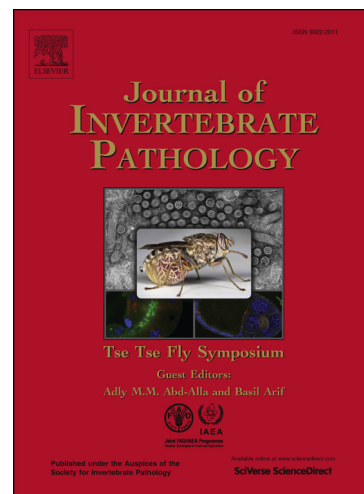
PII: S0022-2011(15)30011-2
DOI: <http://dx.doi.org/10.1016/j.jip.2015.09.001>
Reference: YJIPA 6728

To appear in: *Journal of Invertebrate Pathology*

Received Date: 8 December 2014
Revised Date: 27 August 2015
Accepted Date: 8 September 2015

Please cite this article as: Zhang, Q., Liu, S., Yang, H., Zhu, L., Wan, X., Li, X., Huang, J., Reverse transcription loop-mediated isothermal amplification for rapid and quantitative assay of covert mortality nodavirus in shrimp, *Journal of Invertebrate Pathology* (2015), doi: <http://dx.doi.org/10.1016/j.jip.2015.09.001>

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.



**Reverse transcription loop-mediated isothermal amplification for
rapid and quantitative assay of covert mortality nodavirus in
shrimp**

Qingli Zhang^{a,b}, Shuang Liu^{a,c}, Haolin Yang^a, Luoluo Zhu^{a,c}, Xiaoyuan Wan^a, Xiaoping Li^{a,c}, Jie
Huang^{a,b*}

^a*Yellow Sea Fisheries Research Institute, Chinese Academy of Fishery Sciences, 106 Nanjing
Road, Qingdao, Shandong 266071, China*

^b*National Laboratory for Marine Science and Technology, Qingdao, China*

^c*Shanghai Ocean University, Shanghai 201306, China*

*Corresponding author. Tel: +86 532 85823062; Fax: +86 532 85811514

E-mail address: huangjie@ysfri.ac.cn (J. Huang)

Abstract

A disease known as covert mortality disease has become an increasing problem in the shrimp farming industry in recent years in China and several countries of Southeast Asia, leading to serious losses in production. *Litopenaeus vannamei* (also known as Pacific white shrimp) is affected by this disease that leads to a range of clinical symptoms including hepatopancreas atrophy and necrosis, soft shell, slow growth, and abdominal muscle whitening and necrosis in the acute stage of disease. A new nodavirus, termed covert mortality nodavirus (CMNV), has been shown to be the etiological agent. In this study, we report a sensitive and specific real-time reverse transcription loop-mediated isothermal amplification (RT-LAMP) assay for the rapid

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات