Accepted Manuscript

Molecular characterization of a novel ovodefensin gene in chickens



Lin-tian Yu, Ying-Ping Xiao, Jing-Jing Li, Jin-Shan Ran, Ling-Qian Yin, Yi-Ping Liu, Long Zhang

PII:	S0378-1119(18)30891-6
DOI:	doi:10.1016/j.gene.2018.08.029
Reference:	GENE 43148
To appear in:	Gene
Received date:	28 March 2018
Revised date:	28 July 2018
Accepted date:	6 August 2018

Please cite this article as: Lin-tian Yu, Ying-Ping Xiao, Jing-Jing Li, Jin-Shan Ran, Ling-Qian Yin, Yi-Ping Liu, Long Zhang, Molecular characterization of a novel ovodefensin gene in chickens. Gene (2018), doi:10.1016/j.gene.2018.08.029

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

Molecular characterization of a novel ovodefensin gene in chickens

Lin-tian Yu^{1,4†}, Ying-Ping Xiao^{3†}, Jing-Jing Li¹, Jin-Shan Ran¹, Ling-Qian Yin¹, Yi-Ping Liu¹*, Long Zhang²*

- Farm Animal Genetic Resources Exploration and Innovation Key Laboratory of Sichuan Province, Sichuan Agricultural University, Chengdu Campus, Chengdu 611130, Sichuan, China.
- 2. Institute of Ecology, China West Normal University, Nanchong, 637009, Sichuan, China
- 3. Institute of Quality and Standards for Agro-products, Zhejiang Academy of Agricultural Sciences, Hangzhou, 310021, Zhejiang, China
- 4. Guangxi Agricultural Vocational College, Nanning, 530007530003, Guangxi, China

*Lin-tian Yu and Ying-Ping Xiao contributed equally to this work

* Corresponding author: Prof. Yi-Ping Liu, Laboratory of Animal Genetics and Breeding, College of Animal Science and Technology, Sichuan Agricultural University, 211 Huiming Road, Wenjiang, Sichuan province, 611130, China. Tel.: +86-028-86290987. E-mail address: liuyp578@yahoo.com and Dr. Long Zhang, Institute of Ecology, China West Normal University, Nanchong, Sichuan province, 637009, China. Tel: +86-0817-2260685. E-mail address: zlong4723@163.com or long.zhang@cwnu.edu.cn.

Abstract

Host defense peptides (HDPs) represent a large group of diverse small peptides that play important roles in host defense and disease resistance. In vertebrates, one of the main types of HDPs belong to defensins, which are less than 100 amino acid residues and characterized by a highly conserved motif of cysteine residues. Recently, a subfamily of defensins, namely ovodefensins (OvoDs), have been identified in birds and reptiles. However, both their family members and evolutionary relationships remain unclear. In the present study, we cloned and characterized a novel gene namely *OvoDB* β in chickens. Our results showed that the full length of chicken *OvoDB* β mRNA contains 344 bp nucleotides and encodes a 61-amino acid protein. We further revealed that the mRNA of *OvoDB* β is abundant in the oviduct of laying hens but Download English Version:

https://daneshyari.com/en/article/11033774

Download Persian Version:

https://daneshyari.com/article/11033774

Daneshyari.com