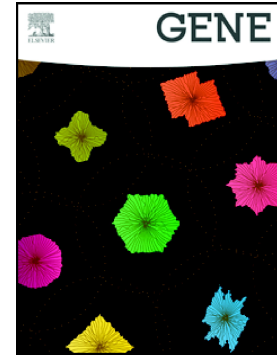


Accepted Manuscript

Molecular characterization, expression and cellular localization of CYP17 gene during geese (*Anser cygnoides*) follicular development

Huilan Huang, Da Chen, Shenqiang Hu, Jiwen Wang, Hehe Liu, Jiwei Hu, Liang Li



PII: S0378-1119(18)30266-X
DOI: doi:[10.1016/j.gene.2018.03.029](https://doi.org/10.1016/j.gene.2018.03.029)
Reference: GENE 42651
To appear in: *Gene*
Received date: 1 September 2017
Revised date: 19 February 2018
Accepted date: 12 March 2018

Please cite this article as: Huilan Huang, Da Chen, Shenqiang Hu, Jiwen Wang, Hehe Liu, Jiwei Hu, Liang Li , Molecular characterization, expression and cellular localization of CYP17 gene during geese (*Anser cygnoides*) follicular development. The address for the corresponding author was captured as affiliation for all authors. Please check if appropriate. *Gene*(2017), doi:[10.1016/j.gene.2018.03.029](https://doi.org/10.1016/j.gene.2018.03.029)

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.

Molecular characterization, expression and cellular localization of *CYP17* gene during geese (*Anser cygnoides*) follicular development

Huilan Huang¹, Da Chen¹, Shenqiang Hu, Jiwen Wang^{*}, Hehe Liu, Jiwei Hu, Liang Li

Institute of Animal Genetics and Breeding, Sichuan Agricultural University, Chengdu, Sichuan, 611130, P.R. China

*Corresponding Author:

Institute of Animal Genetics and Breeding, Sichuan Agricultural University, Chengdu, Sichuan 611130, P.R. China.

Tel: +86 028-86290991; Fax: +86 028 86290991

E-mail: wjw2886166@163.com (J. Wang).

¹Authors contributed equally to this work.

Abstract: As a key member of the cytochrome P450 gene superfamily, *CYP17* gene encodes 17 α -hydroxylase/c17-20 lyase that is critical for directing androgen synthesis. The *CYP17* gene has been identified in several species, yet little is known about its distribution and expression profile during goose follicular development. In the present study, we obtained the full-length coding sequence of goose *CYP17* (*gCYP17*) gene for the first time using RACE method. Its sequence alignment and phylogenetic analysis suggested that *gCYP17* was highly conserved with those of other birds and consisted of four main functional domains like other species. Results from immunohistochemistry, quantitative real-time PCR and Western blotting suggested that *gCYP17* was predominantly located in theca interna throughout follicular development. Furthermore, levels of *gCYP17* reached the maximum in theca layer of the 6-8 mm follicles which were significantly higher than in those of other follicles ($P < 0.05$). In addition, *gCYP17* was expressed at much higher levels in the F4 theca layer than the F1 follicle ($P < 0.05$). Therefore, these results indicated that the fluctuating expression

Download English Version:

<https://daneshyari.com/en/article/8645284>

Download Persian Version:

<https://daneshyari.com/article/8645284>

[Daneshyari.com](https://daneshyari.com)