

Accepted Manuscript

Interferon- τ regulates prostaglandin release in goat endometrial stromal cells via JAB1 - unfolded protein response pathway

Diqi Yang, Tingting Jiang, Jianguo Liu, Jin Hong, Pengfei Lin, Huatao Chen, Dong Zhou, Keqiong Tang, Aihua Wang, Yaping Jin



PII: S0093-691X(18)30088-8

DOI: [10.1016/j.theriogenology.2018.03.007](https://doi.org/10.1016/j.theriogenology.2018.03.007)

Reference: THE 14469

To appear in: *Theriogenology*

Received Date: 4 August 2017

Revised Date: 10 March 2018

Accepted Date: 10 March 2018

Please cite this article as: Yang D, Jiang T, Liu J, Hong J, Lin P, Chen H, Zhou D, Tang K, Wang A, Jin Y, Interferon- τ regulates prostaglandin release in goat endometrial stromal cells via JAB1 - unfolded protein response pathway, *Theriogenology* (2018), doi: 10.1016/j.theriogenology.2018.03.007.

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.

Interferon- τ Regulates Prostaglandin Release in Goat Endometrial Stromal Cells via

JAB1- Unfolded Protein Response Pathway **Revised**

Diqi Yang^{1, *}, Tingting Jiang^{1, *}, Jianguo Liu¹, Jin Hong¹, Pengfei Lin^{1, 2}, Huatao Chen^{1, 2}, Dong Zhou^{1, 2}, Keqiong Tang^{1, 2}, Aihua Wang^{1, 3}, and Yaping Jin^{1, 2, *}

¹ Key Laboratory of Animal Biotechnology of the Ministry of Agriculture, College of Veterinary Medicine, Northwest A&F University, Yangling, 712100, Shaanxi, China

² Department of Clinical Veterinary Medicine, College of Veterinary Medicine, Northwest A&F University, Yangling, 712100, Shaanxi, China

³ Department of Preventive Veterinary Medicine, College of Veterinary Medicine, Northwest A&F University, Yangling, 712100, Shaanxi, China

^{*}Diqi Yang and Tingting Jiang contributed equally to this work.

*Corresponding author:

Key Laboratory of Animal Biotechnology of the Ministry of Agriculture, College of Veterinary Medicine, Northwest A&F University, Yangling, Shaanxi, 712100, China;

Email: yapingjin@163.com; phone: +86-29-8709-1802; fax: +86-29-8709-1032

ABSTRACT

Prostaglandins (PGs) are major products of the uterine endometrium, and they are critical for recognition of pregnancy in ruminants. During the peri-implantation period of pregnancy, interferon tau (IFN- τ) plays an important role in the regulation of endometrial PGs synthesis, but the underlying mechanisms remain poorly understood. In this work, the results demonstrated that IFN- τ increased the PGE₂/PGF_{2 α} ratio, up-regulated the expression of JAB1 and activated the unfolded protein response (UPR). Knockdown of JAB1 reduced the PGE₂/PGF_{2 α} ratio and inhibited the expression of UPR markers in endometrial stromal cells (ESCs) under IFN- τ treatment. Pre-treatment with endoplasmic reticulum (ER) stress activator thapsigargin (Tg) activated UPR and restored the PGE₂/PGF_{2 α} ratio in shJAB1 groups

Download English Version:

<https://daneshyari.com/en/article/8427136>

Download Persian Version:

<https://daneshyari.com/article/8427136>

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