

## Accepted Manuscript

The role of C/EBP $\beta$  phosphorylation in modulating membrane phospholipids repairing in LPS-induced human lung/bronchial epithelial cells

Shiyu Shu, Yan Xu, Ling Xie, Yufang Ouyang



PII: S0378-1119(17)30611-X  
DOI: doi: [10.1016/j.gene.2017.07.076](https://doi.org/10.1016/j.gene.2017.07.076)  
Reference: GENE 42100

To appear in: *Gene*

Received date: 15 November 2016  
Revised date: 22 June 2017  
Accepted date: 27 July 2017

Please cite this article as: Shiyu Shu, Yan Xu, Ling Xie, Yufang Ouyang , The role of C/EBP $\beta$  phosphorylation in modulating membrane phospholipids repairing in LPS-induced human lung/bronchial epithelial cells, *Gene* (2017), doi: [10.1016/j.gene.2017.07.076](https://doi.org/10.1016/j.gene.2017.07.076)

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.

**Research paper****The role of C/EBP $\beta$  phosphorylation in modulating membrane phospholipids repairing in LPS-induced human lung/bronchial epithelial cells**

Shiyu Shu<sup>1\*</sup>, Yan Xu<sup>2</sup>, Ling Xie<sup>2</sup>, Yufang Ouyang<sup>2</sup>

1. Anesthesiology Department, Children's Hospital of Fudan University, Shanghai, 201102.

2. Children's Hospital of Chongqing Medical University, Ministry of Education Key Laboratory of Child Development and Disorders, Chongqing, 400014, China.

\*Corresponding author. Email: shushiyu@hotmail.com. (Shiyu Shu)

**Abbreviations:** ALI, acute lung injury; ARDS, acute respiratory distress syndrome; PLA<sub>2</sub>, Phospholipase A<sub>2</sub>; CCSP, clara cell secretory protein; LPS, lipopolysaccharide; C/EBP  $\beta$ , CCAAT/enhancer binding protein  $\beta$ ; SARS, severe acute respiratory syndrome; MOI, multiplicity of infection; TNF, tumor necrosis factor; IL, interleukin; PAF, platelet activating factor; AA, arachidonic acid; DMEM, Dulbecco's modified eagle medium; FBS, fetal bovine serum; CDS, coding DNA sequence; PCR, polymerase chain reaction; BCA, bicinchoninic acid; ECL, enhanced chemiluminescence; GFP, green fluorescent protein; CDK2, Cyclindependent kinase 2; ELISA, enzyme linked immunosorbent assay; LSD, Least Significant Difference.

**Highlights**

Over-expression of CDK2(Cyclindependent kinase 2) promoted the phosphorylation of C/EBP  $\beta$ .

C/EBP  $\beta$  bound to CCSP1 promoter and facilitated its transcription.

C/EBP  $\beta$  phosphorylation regulation may ease the membrane damage in ALI and improve membrane repair through the C/EBP  $\beta$ /CCSP1/PLA<sub>2</sub> pathway.

Download English Version:

<https://daneshyari.com/en/article/5589215>

Download Persian Version:

<https://daneshyari.com/article/5589215>

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