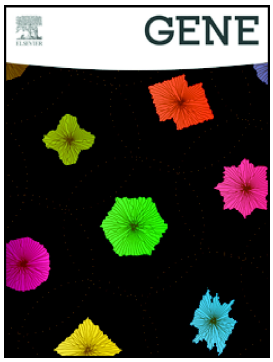

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Research paper

The role of C/EBPβ phosphorylation in modulating membrane phospholipids repairing in LPS-induced human lung/bronchial epithelial cells

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Abbreviations: ALI,acute lung injury; ARDS, acute respiratory distress syndrome; PLA2,Phospholipase A2; CCSP, clara cell secretory protein; LPS,lipopolysaccharide; C/EBP β, CCAAT/enhancer binding protein β; 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 β.

C/EBP β bound to CCSP1 promoter and facilitated its transcription.

C/EBP β phosphorylation regulation may ease the membrane damage in ALI and improve membrane repair through the C/EBP β/CCSP1/PLA2 pathway.