

## Role of Interleukin-36 in Response to Pseudomonas aeruginosa Infection

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**Abstract :** One of the causative agents of the lower respiratory tract (LRT) is Pseudomonas aeruginosa, which can lead to severe infection associated with a lung infection. There are many cytokines that are secreted in response to bacterial infection, in particular interleukin IL-36 cytokine in response to P. aeruginosa infection. The involvement of IL-36 in the P. aeruginosa infection could be a clue to find a specific way for treatments of different inflammatory and degenerative lung diseases. IL36 promotes primary immune response via binding to the IL-36 receptor (IL-36R). Indeed, an overactivity of IL-36 might be an initiating factor for many immunopathologic sceneries in pneumonia. Here we demonstrate if the IL-36 cytokine increases in response P. aeruginosa infection that is isolated from lower respiratory tract infection (LRT). We demonstrated that IL-36 expression significantly unregulated in human lung epithelial (A549) cells after infected by P. aeruginosa at mRNA level.

**Keywords :** IL36, Pseudomonas aeruginosa, LRT infection, A549 cells

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