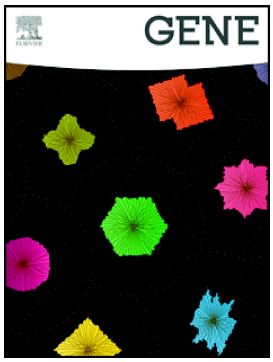

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The molecular mechanisms of androgen receptor in nephrolithiasis

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Abstract

Objectives: This study aimed to investigate the molecular mechanisms of androgen receptor (AR) in nephrolithiasis.

Methods: Human Kidney 2(HK-2) cells were transfected with lentiviruses expressing AR (DEC-AR), shRNA targeting AR (sh-AR) or the empty vector control using the pLEX lentiviral vector system. The expression levels of AR were measured by qRT-PCR at 72 h postinfection, and cells under different treatments were collected for microarray analysis. Differentially expressed genes (DEGs) were identified using Student's t-test. The protein-protein interaction (PPI) network was constructed for negatively correlated DEGs using GeneMANIA. Then, functional and pathway enrichment analysis were performed for the genes in the PPI network.

Results: The qRT-PCR revealed that expression level of AR in DEC-AR cells was obviously increased and decreased in sh-AR cells at 72 h postinfection ($P < 0.05$).