

### **LPS Induces PDL Cells' Proliferation with Participation of Wnt2**

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**Object:** To investigate the expression of cell proliferation related genes and Wnt genes in human periodontal ligament cells (hPDLCs) under the stimulation of lipopolysaccharides (LPS).

**Methods:** HPDLCs were cultured with LPS (0.1 lg/ml) for 0, 4, and 24 hrs. Then the total RNA of the hPDLCs was extracted. The mRNA expression of cell proliferation related genes and Wnt genes were quantitatively analyzed with PCRarray.

**Results:** The expression of Wnt2 mRNA increased by 258.56 and 301.72 folds 4 hrs and 24 hrs after the stimulation of LPS respectively. Accordingly, Cyclin 2 (CCND2) mRNA expression was upregulated by 3.78 and 13.76 folds at 4 hrs and 24 hrs respectively under LPS's stimulation; and similarly, WNT1 inducible signaling pathway protein 1 (WISP1) mRNA expression was up-regulated by 12.82 and 16.44 folds respectively.

**Conclusions:** LPS induces hPDLCs' proliferation with participation of Wnt2.