



PSORIASIS

HIGH-THROUGHPUT RNA SEQUENCING ANALYSIS OF EFFECTS OF ANGELICA POLYSACCHARIDE ON HACAT

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Background: Angelica polysaccharide (APS) is an active substance extracted from angelica. HaCaT is a kind of permanent and potentially differentiated cell, which is often used as a model to study the physiological function of keratinocytes. High-throughput sequencing is a popular technology in recent years. In this study, we used high-throughput RNA sequencing for the effect of angelica polysaccharides on HaCaT cells, searched for the differential genes (DEGs), conducted the functional enrichment of the differential genes, and discussed the effect of angelica polysaccharides on keratinocytes. To provide theoretical support for the treatment of psoriasis.

Objective: To investigate the effects of angelica polysaccharide on HaCaT cell by High-throughput RNA sequencing.

Materials and Methods: The study involved 6 groups, including 3 groups disposed by angelica polysaccharide and 3 groups without angelica polysaccharide. RNA was extracted from HaCaT cells and RNA library was constructed, and High-throughput RNA sequencing was conducted with Illumina HiSeq platform. Data were counted and differentially expressed genes (DEGs) were searched. Then functional and pathway analyses were conducted.

Results: GO (gene ontology) functional enrichment mainly focused on down-regulated expression immune pathways, such as type I interferon signaling pathway, immune response, response to cytokine.

Conclusions: Angelica polysaccharide could restrain the abnormal immune function of HaCaT.

