

## 基于香菇、茯苓、银耳多糖配方对免疫抑制小鼠的免疫增强相关基因鉴别 Identification of genes underlying the enhancement of immunity by a formula of lentinan, pachyman and tremelia polysaccharides in immunosuppressive mice

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多糖具有广泛的功效，尤其是在免疫调节方面。为了解多糖调节免疫力变化的遗传基础，无限极中草药免疫研究中心设计了由香菇多糖、茯苓多糖和银耳多糖组成的多糖配方，使用免疫抑制模型，通过 T 细胞和 B 细胞中的数字基因表达谱 (DGE) 进行研究。结果表明，多糖配方有助于恢复免疫相关基因的表达，包括 B 细胞中的 CADM1、CCR2、IGLL1、LIGP1、FCGR3 和 FCGR2，以及 T 细胞中的 S100A8、S100A9、ChIL3、MMP8 和 IFITM3。说明多糖可通过调节与 T 细胞和 B 细胞功能相关的基因表达，以提高免疫抑制小鼠的免疫力。

The efficacy of polysaccharides is widespread, especially in immune regulation. To obtain the genetic basis of the changes in polysaccharides regulating immunity, Infinitus Chinese Herbal Immunity Research Centre designed a polysaccharide formula, comprising lentinan, pachyman and tremelia, we focused on a model of immunosuppression to investigate genes by digital gene expression (DGE) tag profiling in T and B cells. These genes were further validated by qRT-PCR and Western blot experiments. Consequently, polysaccharide formula treatment helped to recover the expression of immune-related genes, including CADM1, CCR2, IGLL1, LIGP1, and FCGR3, FCGR2 in B cells, as well as S100A8, S100A9, ChIL3, MMP8 and IFITM3 in T cells. These results suggest that treatment with polysaccharides improves the immunity of immunosuppressive mice by regulating genes associated with T and B cell functions.

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