

基於香菇、茯苓、銀耳多醣配方對免疫抑制小鼠的免疫增強相關基因鑑別

Identification of genes underlying the enhancement of immunity by a formula of lentinan, pachymaran and tremelia polysaccharides in immunosuppressive mice

科研報告 Science Report

多醣具有廣泛的功效，尤其是在免疫調節方面。為了解多醣調節免疫力變化的遺傳基礎，無限極中草藥免疫研究中心設計了由香菇多醣、茯苓多醣和銀耳多醣組成的多醣配方，使用免疫抑制模型，通過 T 細胞和 B 細胞中的數位基因表達譜 (DGE) 進行研究。結果表明，多醣配方有助於恢復免疫相關基因的表達，包括 B 細胞中的 CADM1、CCR2、IGLL1、LIGP1、FCGR3 和 FCGR2，以及 T 細胞中的 S100A8、S100A9、ChIL3、MMP8 和 IFITM3。說明多醣可通過調節與 T 細胞和 B 細胞功能相關的基因表達，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, pachymaran 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.

原文連結 Article Link :

<https://www.nature.com/articles/s41598-018-28414-w>

www.nature.com/scientificreports

SCIENTIFIC REPORTS

OPEN

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Received: 13 December 2017
Accepted: 27 April 2018
Published online: 04 July 2018

說明：實驗結論以原論文為準

Note: The experimental conclusion is subject to the original paper