

## 海洋細菌 *Vibrio anguillarum* のリポ多糖体の マウスにおける細胞幼若化作用と免疫ア ジュバント作用

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### Mitogenicity and Adjuvanticity of Lipopolysaccharide from a Marine Bacterium, *Vibrio anguillarum* in Mice

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**ABSTRACT** The effects of lipopolysaccharides (LPS) extracted from three O-serotype (A, B, and C) strains of *Vibrio anguillarum* on the murine immune response were studied. Although the LPSs lack 2-keto-3-deoxyoctonate (KDO) and the sugar compositions of their core regions are markedly different, depending on the O-serotype, they were all able to induce a mitogenic effect on *in vitro*-cultured spleen cells of C57BL/6 mice. The LPS was capable of increasing the incorporation of <sup>3</sup>H-thymidine into spleen cells that had been treated with rabbit antithymocyte serum in the presence of complement in order to kill T-lymphocytes. When sheep erythrocytes and LPS were injected intraperitoneally into BALB/c mice, the LPSs exhibited an enhancing effect on the antibody response regardless of the serotype.

These findings suggest that these biological effects of *V. anguillarum* LPSs from different O-serotype strains are little affected by the absence of KDO and the differences in sugar composition.

抄録 *Vibrio anguillarum* の3つのO-血清型(A, B, C)株からのリポ多糖体(LPS)のマウス免疫反応に及ぼす作用を検討した。これらのLPSは2-ケト-3-デオキシオクトネートを欠き、コア部の糖組成は著しく異なっていたが、すべてC57BL/6マウスの試験管内培養脾細胞に対し幼若化作用を示した。これらLPSはT-リンパ球を殺すために、補体の存在下でウサギ抗胸腺細胞抗血清で処理した脾細胞において<sup>3</sup>H-チミジンの取り込み増大を示した。またヒツジ赤血球とLPSをBLB/cマウスの腹腔内に注射したとき、LPSは抗体産生の増強効果を示した。これらの結果から、O-血清型の異なる*Vibrio anguillarum* LPSの生物学的作用はKDOの欠損とか糖組成の相違によってあまり違いがないことを示唆した。

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