

Adjuvanticity of pGPL-Mc and LRS in the Immune Responses of Monkeys to Oral Immunization with Diphtheria and Tetanus Toxoids

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Appeared in *Comparative Immunological & Microbiological Infectious Disease* (1997), 20:13-20

Summary: Experiments were carried out to examine the adjuvanticity of polar glycopeptidolipids of *Mycobacterium chelonae* (pGPL-Mc) or the London rocket seed (LRS) when combined with diphtheria and tetanus toxoids in an oral immunization of the African green monkey. The results showed that none of the monkeys receiving diphtheria and toxoids combined with 25mg/kg of pGPL-Mc showed an increase in the level of diphtheria antitoxin on the third and sixth wk following the first and second immunization. The anti-diphtheria antitoxin responses of monkeys receiving diphtheria and tetanus toxoid combined with 50mg/kg of pGPL-Mc or 50mg/kg LRS were significantly enhanced compared to the groups administered 25mg/kg of the two adjuvants. The results show that pGPL-Mc induced the highest titres of anti-diphtheria antitoxin compared to LRS. According to the statistical analyses, no significant differences were recorded between the diphtheria antitoxin responses of monkey following the first, second and third administration of LRS-adjuvanted diphtheria and tetanus toxoids. However, a significant difference ($P < 0.05$) was observed in the diphtheria antitoxin response between the first and second immunization of monkeys administered with toxoids adjuvanted with 50mg/kg of pGPL-Mc.

We have recorded an anti-tetanus antitoxin titre of more than 0.2IU/kg of serum in one monkey that received diphtheria and tetanus toxoids combined with 50mg/kg of pGPL-Mc.

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