

عنوان مقاله:

Inactivated herpes simplex virus-1 vaccine formulated in aqueous and alcoholic extracts of propolis boosts cellular and IgG responses

محل انتشار:

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خلاصه مقاله:

Objective(s): In this study, the adjuvant activity of aqueous and alcoholic extracts of propolis was examined on the inactivated herpes simplex virus-1 (HSV-1). Materials and Methods: BALB/C mice were administered with inactivated (HSV-1; the KOS strain) plus alcoholic and aqueous extracts, followed by assessment of the cellular and humoral immune responses. Results: Alcoholic and aqueous extracts, as an adjuvant, revealed a significant increase in lymphocyte proliferation and cytotoxic T lymphocyte (CTL) responses versus the HSV-1 group. In addition, HSV-1 plus alcoholic extract showed a remarkable increase in IFN- γ cytokine and IFN- γ /IL-4 ratio. On the other hand, both alcoholic and aqueous extracts in the HSV-1 vaccine suppressed the IL-4 cytokine response as compared with the HSV-1 vaccine. In addition, HSV-1 plus alcoholic extract showed a significant increment in IgG1, IgG2a, and IgG2b isotypes as compared with the HSV-1 vaccine. Conclusion: Propolis extracts seem to modulate the immune response against inactivated HSV-1 model and can be used as a suitable vaccine adjuvant or a component of a complex adjuvant against infectious diseases

کلمات کلیدی:

Adjuvant, HSV-1, Propolis, Th1, Vaccine potency

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