

عنوان مقاله:

Proliferate Resonse to Purified Bordetella pertussis Toxin on Murine Spleen Lymphocytes

محل انتشار:

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خلاصه مقاله:

A purification procedure of pertussis toxin (PT) from submerged culture of *Bordetella pertussis* (B.pertussis) strain ۱۳۴ using adsorption and affinity chromatography was discussed. The yield of the resulting PT was approximately ۳۷.۵mg/l of concentrated culture supernatant. The polypeptide pattern of the purified PT was investigated by SDS-PAGE and showed five bands between ۱۱ to ۲۶ KDa using low molecular weight marker. Since PT is the main component of acellular pertussis vaccine, obtaining a good yield of it would be essential for production of the new and safer vaccine generation. The other objective of this study was to determine the effects of PT on murine lymphocytes using MTT test. The effect of various doses of prepared PT on murine lymphocytes showed that the amount of ۰.۵μg/۰.۱ml had the highest proliferation. Furthermore comparison between the resulting PT and phytohemagglutinin showed much higher effect of PT on murine spleen cells. These results indicate that B.pertussis strain ۱۳۴ is a suitable strain for induction of PT in order to use it for development of acellular vaccine in Iran and also for in vitro studies on proliferation of murine lymphocytes

کلمات کلیدی:

Pertussis Toxin, PURIFICATION, lymphocyte proliferation, spleen cell

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