عنوان مقاله:

Designing of Dot-Elisa system for diagnosis of Glanders

محل انتشار:

بیستمین کنگره بین المللی میکروب شناسی ایران (سال: 1398)

تعداد صفحات اصل مقاله: 1

نویسندگان:

Saeed Mohammad Hoseini - *Bovine Tuberculosis Reference Laboratory, Razi Vaccine and Serum Research Institute, Agricultural Research, Education and Extension Organization (AREEO), Tehran, Iran*

Lida Abdolmohammadi Khiav - *Department anaerobic bacterial vaccine Production and Research, Clostridia Research laboratory, Razi Vaccine and Serum Research Institute, Agricultural Research, Education and Extension Organization (AREEO), Tehran, Iran*

Nader Mosavari - *Bovine Tuberculosis Reference Laboratory, Razi Vaccine and Serum Research Institute, Agricultural Research, Education and Extension Organization (AREEO), Tehran, Iran*

Keyvan Tadayon - *Bovine Tuberculosis Reference Laboratory, Razi Vaccine and Serum Research Institute, Agricultural Research, Education and Extension Organization (AREEO), Tehran, Iran*

Rouhollah Keshavarz - *Bovine Tuberculosis Reference Laboratory, Razi Vaccine and Serum Research Institute, Agricultural Research, Education and Extension Organization (AREEO), Tehran, Iran*

خلاصه مقاله:

Introduction and Objectives: Glanders is one of the most dangerous and oldest zoonotic diseases that is caused by Burkholderia mallei. Iran has been determined as the center for glanders for many years because of annual outbreaks. Risks of transmission of disease is also very high. In other hand, horses cannot be kept for long time especially in the border areas so quick detection is very urgent. Therefore, the aim of this study is designing of Dot-Elisa system for rapid detection. Materials and Methods: So, 40 serum samples were collected from different provinces, along with reference strain of Burkholderia mallei and 3 healthy horses was used as positive and negative control respectively. The antigen and antibody optimum dilutions was determined by checkerboard titration. After optimization of Dot-Elisa system, Antigen (1.2 McFarland dilution) was prepared and coared into wells and was incubated at 37 ° C for 3 hours then it was washed with PBS containing tween (pH 6.4). In the next step diluted blocking (100µl) was poured and incubated for 3 hour. Repeated washing with PBS containing tween, then diluted serum samples (1/64 dilution) was poured into wells and incubated for 30 minutes in the refrigerator. After that the wells were washed with PBS, the diluted Anti-horse (100µl) (1/50 dilution) was added and incubated for the same time in the refrigerator. After washing steps, TMB (50µl) was added. Finally, the color reaction was observed. Result: In this study, out of 40 samples, 6 cases were positive. Considering that mallein test as a standard test and comparing with Dot-Elisa, the sensitivity and specificity were 100% and 91.9% respectively. Conclusion: Therefore, Dot-Elisa is suggested as a rapid diagnostic method for disease cases.

کلمات کلیدی: