Abstract

“Production of polyclonal antibody against formalin inactivated *E. coli* ATCC 25922 in rabbit”

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New-Zealand white rabbit is immunized with inactivated culture of *E. coli* ATCC 25922. The pure culture is sub-cultured into nutrient broth and cell density is fixed at $1 \times 10^6$ and inactivated by formalin treatment before immunization. Blood is harvested during different time intervals to check for the production of antibody. Agglutination is done after a week of immunization as a qualitative test for anti-*E. coli*. After the positive agglutination test, booster doses are administered and titre determination is done by slide agglutination test (SLA) and ELISA which suggest the production of significant amount of antibody. Blood harvested in different time intervals of different doses are subjected to centrifugation to separate serum. Titre determination of the serum samples are done by diluting them to various concentrations and checking for the highest dilution that produces agglutination in SLA or cut off value of OD in ELISA. The samples are also precipitated by ammonium sulphate precipitation to separate the IgG fraction. Dialysis is done further to remove the contaminants. Optical density of purified antibody (280 nm) gives the concentration of antibody.

**Keywords:** *E. coli*, agglutination, dialysis