

**EVALUATION OF IMMUNOGLOBULIN Y REACTIVITY OF CHICKENS IMMUNIZED
WITH B19 AND ITS APPLICATION IN IMMUNODIAGNOSTICS**

*(AVALIAÇÃO DA REATIVIDADE DE IMUNOGLOBULINAS Y DE GALINHAS IMUNIZADAS COM
VACINA B19 E SUA APLICAÇÃO EM IMUNODIAGNÓSTICO)*

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The IgY is classified as such because maternal antibodies are transferred from the serum to the egg yolk. Thereby to acquire antibodies reactive to a particular type of antigen, animal killing could be avoided since the antibodies can now be extracted from the yolk in large quantity, something that does not occur with mammals. This study aims to evaluate the reactivity of immunoglobulin Y of chickens immunized with B19 through the production of specific polyclonal antibodies, detectable in official tests for brucellosis such as Buffered Acidified Antigen (AAT) and 2-mercaptoethanol (2-ME), and ELISA. Four hens were randomly divided into two experimental groups, one of which the control group (Group 1) and the second, a group immunized with *Brucella abortus* B19 vaccine (Group 2). The chickens of Group 1 were immunized with 250 µL of PBS while in Group 2 with 250 µL of B19 vaccine diluted in PBS; adjuvant was added in both. The two groups were immunized six times during 13 weeks, fortnightly. To evaluate the production and reactivity of IgY seven blood samples were collected biweekly, the first, a week before the first immunization and the others a week after each immunization; and eggs were harvested daily starting from a week before the first immunization, and separated by group per week. The IgY from the egg yolk was purged from an egg yolk pool of each group prepared weekly, using the delipidation by dilution with water and acid precipitation with ammonium sulfate method. The chickens of Group 1 were not reactive to the tests, whereas the chickens in Group 2 produced antibodies reactive to this antigen detectable in all brucellosis diagnosis tests. It is concluded that the chickens produced IgY antibody reagents in serological tests performed, and the immunoglobulin Y is a potential antigen for production of specific antibodies that can be used in diagnostic tests.

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