

PRODUCTION OF POLYCLONAL ANTIBODIES AGAINST RICIN

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Key-words: Ricin; polyclonal antibodies, sorologic assay.

Introduction and objectives. The castor bean cake has a great nutritious importance and shows an enormous potential for animal food. However, it needs being detoxified to eliminate toxic and allergenic substances in the seeds. One these substances is a ricin, a protein with ability to inhibit protein synthesis. Sorologic methods can be used in the detection of ricin in castor bean cake. This work had the objective of producing and evaluating the sensibility and specificity of polyclonal antibodies against ricin employing immunoassays. **Methods and results.** The antibodies were produced in New Zealand rabbits. The rabbits were immunized subcutaneously with 93 µg of ricin and agglutinin cut of polyacrylamide gels electrophoresis in denaturated conditions. The animals were bled from ear each seven days until 42^o day and three weeks after first immunization was applied a new dose with same quantity of protein of begin immunization. The serum was stocked at -4°C. The sensibility and specificity of the antibodies produced were evaluated by ELISA indirect e Western blot technique, respectly. The antibodies cinetic response showed increase in the production of antibodies until 21^o day and after the application of the second dose it was veriflicated decrease in the quantity of antibodies. The study of antibodies titers produced by immunization of ricin in rabbit showed high sensibility for the serum collected in 7, 14, 21 and 28 days, that reacted until dilution of 1:12.800. The serum of 35 days reacted until 1:6400 and of 42 days until 1:800. The Western blot technique showed high specificity of antibodies produced for detection of ricin in the presence of all proteins of castor bean cake. **Conclusion.** The analysis of polyclonal antibodies produced it indicated high sensibility and specificity in detection of ricin.

IMMUNO RIB2008



XXXII Meeting of the Brazilian Society for Immunology

II Extra Section of Clinical Immunology - ESCI

Ribeirão Preto - Brazil - October 16 - 22, 2008

XXXII Meeting of the Brazilian Society for
Immunology - SBI 2008

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Ribeirão Preto - Brazil - October 18-22, 2008

"Intervention in
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