HUMORAL IMMUNE RESPONSE IN MICE ORALLY SENSITIZED WITH LYOPHILIZED EXTRACT OF COMMON BEAN (PHASEOLUS VULGARIS)

José Ytalo Gomes da Silva¹, Marcelo Oliveira Holanda¹, Paula Alves Salmito Rodrigues¹, Juliana Barbosa Dantas¹, Thais Vital de Freitas¹, Raquel Teixeira Terceiro Paim¹, Sandra Machado Lira¹, Erlândia Alves Magalhães Queiroz¹, Carla Laine Silva Lima¹, Maria Aryadine Venâncio Bezerra¹, Natalia do Vale Canabrava¹, Mariana de Freitas Moreira¹, Rafaela Valeska Rocha Bezerra Sousa¹, Tiago de Lavor Gama¹, Bruno Bezerra da Silva¹, Lia Magalhães de Almeida¹, Thaís Cavalcante Façanha¹, Maria Izabel Florindo Guedes¹.

¹ Department of Human Biochemistry, State University of Ceará, Ceará, Brazil.

Introduction: The prevalence of obesity is increasing every year in the Brazilian population, generating huge costs for the health system. In the search for alternative therapies for the control of obesity and its consequences, there is a great demand for products that are sold without a prescription as herbal remedies, vitamins and dietary supplements. Inhibitors of α-amylase extracted from beans (Phaseolus vulgaris) have shown satisfactory results in weight loss and postprandial glycemia. However, little is known about the immunogenic responses that they may present. Objective: Thus, the present study aims to evaluate the humoral response in sensitized orally with extract of freeze-dried kidney beans mice. Material and methods To this end mice like "swiss" sensitized orally with 100 mg of freeze-dried bean extract diluted in water for 10 consecutive days and the ribs 21 and 35 days were used. Bled at 1, 7, 14, 21 and 42 days were performed. The responses were investigated in the production of the immunoglobulins IgG, IgG1 and IgE by "Enzyme Linked Immuno Sorbent Assay" and "Western Blotting". Results: The study presented only for IgG immune response, which points to a possible safe use of the product. Conclusion: Although the results of this study demonstrate a level of safety in using the extract analyzed, much can be explored within this theme in order to verify issues related to effectiveness, cytotoxicity and interaction with drugs, so proposed further studies in this area.

Acknowledgements
The authors thank the Greenbean Biotechnology for their support.

Keywords: Obesity, diabetes, alpha-amylase inhibitor.