SURVEY OF HEMAGGLUTINATING ACTIVITY OF EXTRACTS OF PLANTS FROM CHAPADA OF THE ARARIPE

Silva, H.C.1; Pereira Junior, F.N.1; Nobre, C.B.1; Freitas, B.T.1

Depto. de Ciências Físicas e Biológicas, Universidade Regional do Cariri, Ceará, Brazil

Lectins are (glyco)proteins whose present capacity of specific carbohydrate recognition. These molecules probably play an important role in the organisms; they are ubiquous proteins and display a large spectrum of biological activities. When interacting with glycoconjugates from cellular surface, lectins can promote the formation of crossed-linking between adjacent cells, causing their addlutination. This property can be used as an identification tool to investigate the presence of lectins in all organisms. The present work was carried with the objective to identify the occurrence of lectins in plants of the Araripe National Reserve. Seeds of the following plants had been analyzed: Enterolobium contortisiliquum; Dioclea rostrata; Himenea courbaril L; Copoifora langsdorffi Desf.; Senna macrantera. Among the tested species, Dioclea rostrata was the only one that exhibited haemagglutinating activity against erythrocytes from several human blood types. The lectin present in extracts of *D. rostrata* had a specific hemagglutinating activity of 256 U.H against A-type erythrocytes and 512 U.H against O-type erythrocytes. The inhibition tests had demonstrated that this lectin is glucose-specific.

Supported by: FUNCAP, CNPq, URCA

Key words: hemagglutination, lectin, glucose-specific binding.