MOLECULAR CLONING OF A cDNA CLONE CODING A CHITIN BINDING PROTEIN FROM CHILI PEPPER (*CAPSICUM ANNUUM* L.) SEEDS

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Chitin binding proteins present the ability of binding reversibly to chitin, the major component of fungal cell walls. They are found in different organisms, including plants. The antifungal potential of these proteins have been described by many authors. The aim of this work was the molecular cloning and sequencing of a cDNA clone encoding a chitin binding protein from chili pepper seeds. Seeds were allowed to germinate in Petri dishes containing cotton fibers imbibed with water for, approximately, five days. After this period, these seeds were recovered and submitted to total RNA extraction. Polyadenylated mRNA was obtained from total RNA and submitted to a transcriptase reverse reaction. The product of this reaction was used in a PCR, from which was obtained a fragment of approximately 250 bp that was ligated to the pTZ57R cloning vector. The amplified fragment inserted into the vector was then used to transform bacteria competent cells (JM109 strain). The positive clones obtained from the transformation were submitted to analysis by plasmid extraction. Afterwards, the extracted plasmids were prepared for sequencing. The deduced amino acid sequence showed similarity with the sequences of chitin binding proteins.

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