Cassava (Manihot esculenta Crantz, Euphorbiaceae) is the fourth food crop used as an important energy source for human population worldwide. Cassava Bacterial Blight (CBB) is the most important disease of this crop. CBB is caused by the pathogenic bacterium Xanthomonas axonopodis pv. manihotis (Xam). Plants have developed sophisticated mechanisms to detect and respond to infection by pathogens. These mechanisms depend on the presence of resistance (R) genes, which recognize proteins produced by pathogens. Although efforts have been conducted to identify R genes in cassava, the first R gene in this crop has not been cloned. The present work studied the expression profile of two resistance gene candidates (RGCs) which are linked to QTL associated with resistance to CBB. Gene expression of RXam1 and RXam2 was evaluated by reverse transcription-polymerase chain reaction (RT-PCR) in stems and leaves of SG107-35 and MBRA685, two cassava resistant cultivars, which were challenged with Xam CIO151. We observed that the expression of RXam1 is induced starting five days post-inoculation in the two cultivars studied and in both tissues while the gene RXam2 was constitutively expressed in MBRA685 cultivar.

Keywords
Manihot esculenta; Xam; RGC; RT-PCR.