CHLOROPLAST TRANSFORMATION OF MOSQUITOCIDAL Bacillus sphaericus BINARY TOXIN GENES IN Chlamydomonas reinhardtii

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ABSTRACT

Bacillus sphaericus binary toxin genes (42kDa and 51kDa) conferring mosquitocidal properties were successfully incorporated in Chlamydomonas chloroplast by gun bombardment method. Polymerase chain reactions amplified aadA and 42 kDa fragments in the genomic DNA of Chlamydomonas evidenced the successful integration. Southern blot hybridization after digestion of cellular DNA separately with HindIII, and ClaI restriction endonucleases and probed with different probes (42kDa, and aadA genes) produced the bands similar to or slightly higher than that of the original plasmid. But unclear bands was observed when 51kDa gene hybridized with chloroplast DNA.