

Title Obtaining genomic DNA for construction of genomic library
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Abstract

Vine cacti of the genera *Hylocereus* and *Selenicereus* which originate from northern South America, Central America, and Mexico, are currently being grown as new exotic fruit crops. Successful establishment of genomic library will serve as a platform for molecular studies such as gene characterization and gene analysis. One common problem associated with constructing library is difficulty in obtaining intact and high molecular weight DNA with good quality. Furthermore, the presence of polysaccharides in DNA extract interferes with the downstream processes such as restriction digest and polymerase chain reaction (PCR). The aim of this work is to isolate pure genomic DNA from *Hylocereus undatus* and *Hylocereus polyrhizus* for the construction of genomic library. Genomic DNA was extracted using various plant parts from 2-3 weeks old seedling, roots and stems. The quality of the isolated DNA was tested using spectrophotometer and digested using BamHI. Genomic DNA isolated from germinated seedling showed the highest quality following restriction digestion analysis.