البحث الرابع

Zaki A. El Fiky, Ahmed A.M. Yassein, **Nada F. Hemeda** and Gehad R. Eid **(2018)**. A simple, rapid, efficient and low cost method for miniprep DNA from different sources. Fayoum Journal of Agriculture Research & Development, 33 (2): xx-xx.	**البحث الرابع**

Title	**A simple, rapid, efficient and low cost method for miniprep DNA from different sources.**
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ABSTRACT

DNA extraction and purification are routine processes in most plant genetic transformation laboratories. Although there are different commercial kits that allow accurate DNA purification, the total cost of buying multiple sets of these kits can be spectacular. We use spin column and laboratory solutions to develop a simple method of DNA purification that can meet different research needs. This method is used to extract DNA from the leaves of Brassica and genetically modified plants and also bacteria; extract plasmid DNA from *E. coli* or *Agrobacterium tumefaciens*; purify the DNA fragments of PCR products and the resulting fragments of digestion with restriction endonuclease. DNA concentration of optical density (OD) value was calculated at 260 nm wavelength and OD260 / OD280 ratios were used to determine DNA quality. The quantity and quality of DNA obtained by this method was similar to that of isolated DNA using commercial Kits. In comparison, it has been shown that this method allows obtaining DNA from different sources with similar quantity and purity and low costs.