

A SIMPLE HEAT ELUTION OF HUMAN GENOMIC DNA FROM FTA® TREATED PAPER USING WATER

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FTA® treated paper is currently being used in our laboratory for archiving blood samples of convicted offenders for the purpose of future retrieval in order to confirm DNA profiles prepared in our laboratory. FTA® treated paper offers several advantages over older archive cards: the ability of this paper to inactivate potentially infectious viruses and blood borne diseases and the ability to fix the DNA so it can be stored in an aluminum barrier pouch at room temperature for a prolonged period of time without the need for refrigeration. Genomic DNA recovered from FTA® treated cards has been routinely used in our laboratory for both RFLP and PCR based assays using the manufacture's recommendations for over two years.

However, the automated 1.2 mm punch method has been reported by others to pose some difficulties when used in conjunction with high throughput methodologies. Additionally, this method does not easily lend itself to quantifying the DNA samples, an essential step in our DNA profiling process. Here we tested a simple technique for eluting genomic DNA from two FTA®-treated formats; Genspin (Whatman-Fitzco Inc.) columns and 8 mm punches from an ordinary FTA®-treated blood archive card in a forensic spin basket. The eluted product is easily quantifiable using the OliGreen dye and the procedure should be easily adapted to our high throughput format utilizing 96 well FTA®S plates.