Long-term, room temperature storage of DNA extract on filter paper

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Abstract

1. Stable nucleic acid storage and preservation in resource limited settings is often a barrier to widespread pathogen surveillance. 2. Dried Blood Spot (DBS) filter paper has a long history of preserving nucleic acid in whole blood, we tested extending this technology to the room temperature storage of DNA extract. 3. We found that DNA extracted from whole mammalian blood can be stored at room temperature on DBS filter paper, then washed with the buffer solution Tris-HCL, and used in downstream PCR analysis with results comparable to PCR performed on DNA extracted from whole blood dried on DBS filter paper which is the gold standard. 4. The success of this method means DNA can be stored at room temperature making sharing genomic samples easier by eliminating the need for cold chain.

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