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A mini-multiplex SNaPshot assay for the triage of degraded human DNA

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Highlights

- A single SNP multiplex (Miniplex) combining autosomal, Y chromosome and mitochondrial DNA markers was developed and optimised.
- The Miniplex provides a broad biological profile for unknown human samples, including mtDNA haplogroup, Y chromosome haplogroup (males), sex, biogeographic ancestry and eye colour.
- The Miniplex produced a biological profile consistent with declared metadata from diverse reference samples.
- Application to degraded human samples with low template and degraded DNA indicates good sensitivity.
- The Miniplex is a valuable tool to quickly and inexpensively triage unidentified human remains

Abstract

Short Tandem Repeat (STR) genotyping is currently the primary DNA-based method for human identification, however it can have limited success when applied to degraded human

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