



Evidence of DNA stability in Oragene®/saliva samples[†] stored at ambient temperature for longer than five years

Introduction

DNA in Oragene®/saliva samples has previously been shown to be stable at ambient temperature for up to 5 years¹.

This study evaluated the quantity and quality of DNA from two groups of samples stored at ambient temperature for longer than 5 years. One group of 30 samples was collected in 2004 and one group of 8 samples was collected in 2006. All samples were collected according to the instructions provided with the kit and stored at ambient temperature (~23°C) in the original Oragene sample tubes.

Materials and methods

DNA was extracted from a 500 µL aliquot of each sample using the prepIT®•L2P DNA extraction kit. The kit uses a proprietary solution to remove impurities followed by alcohol precipitation of the DNA. The DNA pellet was dissolved in 50 or 100 µL of TE buffer.

The extracted DNA was quantified using PicoGreen® and the purity evaluated by measuring the A_{260}/A_{280} ratio using a NanoDrop® spectrophotometer. DNA integrity was assessed using agarose gel electrophoresis.

Results

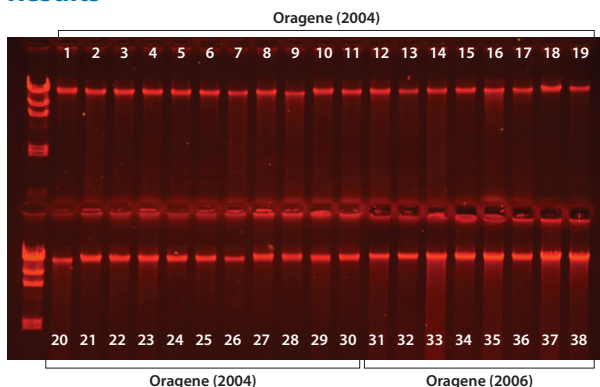


Figure 1: Agarose gel of DNA extracted from Oragene/saliva samples collected in 2004 and 2006 and stored at ambient temperature. Approximately 100 ng of DNA was run on 0.8% agarose gel (90V, 50 minutes). DNA was stained with ethidium bromide and visualized under UV light.

[†] Saliva samples were collected with Oragene®•DNA or Oragene®•DISCOVER.

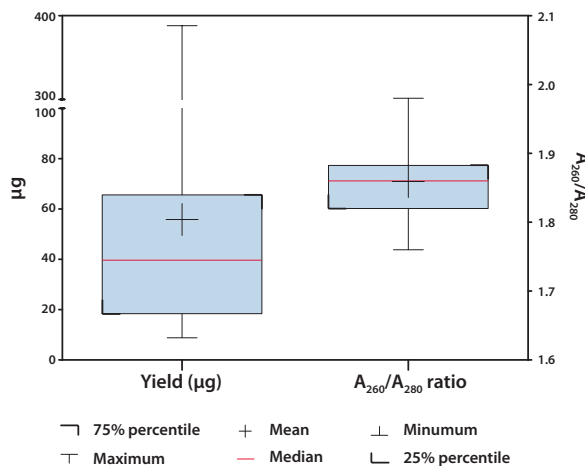


Figure 2: Yield and A_{260}/A_{280} measurements of DNA extracted from Oragene/saliva samples collected in 2004 and 2006 and stored at ambient temperature.

	Yield (µg)	A_{260}/A_{280} ratio
Minimum	8.8	1.76
Maximum	390	1.98
Mean	55.9	1.86
Median	39.7	1.86

Table 1: Summary of results.

Conclusion

Samples purified after ambient temperature storage in Oragene for up to 9 years exhibit high yields and high molecular weight human genomic DNA.

References

- 1 Long-term stability of DNA from saliva samples stored in Oragene self-collection kit. DNA Genotek. PD-WP-005.

No warranty can be made on the performance of the kits based on the data demonstrated in this paper. Customers should validate Oragene for their own purposes to ensure successful use of the kits.

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