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DNA extraction from frozen whole blood using the DNeasy Blood & Tissue kit (QIAGEN)

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ABSTRACT

Even though DNA extraction from whole blood is a standard protocol of most commercial kits DNA quality and purity can be disappointing if those protocols are not optimised. Here, we present an optimised protocol for the extraction of high quality genomic DNA using the DNeasy Blood & Tissue kit (QIAGEN). Our downstream application of the DNA was the measurement of relative leukocyte telomere length by qPCR. The protocol might also be appropriate for other downstream applications. Changes reported here significantly improved DNA yield and 260/280 and 260/230 ratios measured on NanoDrop.

ATTACHMENTS

20170729_DNAExtraction Protocol_SpinColumns.docx

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PROTOCOL CITATION

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KEYWORDS

high quality DNA

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MATERIALS TEXT

MATERIALS

☒ QIAgen DNeasy Blood and Tissue Kit, 50 rxn **Qiagen Catalog #69504**

☒ 250ml RBC Lysis Buffer **G-Biosciences Catalog #786-650**

☒ 1 Liter PBS [10X] (Phosphate Buffered Saline) (80mM Na2HPO4, 1.5M NaCl, 20mM KH2PO4, 30mM KCl, pH 7.4) **G-Biosciences Catalog #R027**

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