DNA extraction from whatman filter papers

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ABSTRACT

This protocols is for RNA extraction from Whatman filter paper.

PROTOCOL STATUS

Working

We use this protocol in our group and it is working

STEPS MATERIALS

NAME	CATALOG #	VENDOR
Chelex 100	C7901-100G	Sigma Aldrich
DNAse/RNAse free distilled water	10977023	Thermo Fisher Scientific

Lyse RBC

1 Filter paper disc containing blood cut and placed into 1.5 mL EP tubes.

2 Add 1 ml RNase-free water and vortex to mix.

DNAse/RNAse free distilled water
by Thermo Fisher Scientific
Catalog #: 10977023

3 Incubate at 25 °C Room temperature for 00:15:00 to lyse RBC.

Precipitate the DNA and separate phases

4 Centrifuge at 20,000 × g for 00:05:00, discard the supernatant with a micropipettor.

go to step #2 until the DNA precipitate forms a white or pink gel-like pellet at the bottom of the tube.

5 Resuspend the pellet in 150 µl 10% Chelex-100 solution vortex the sample briefly for 00:00:30 .

Chelex 100
by Sigma Aldrich
Catalog #: C7901-100G

6 Incubate the sample at 100 °C for 00:10:00 .

7 Centrifuge for 00:05:00 at 20,000 × g.

8 Carefully transfer the supernatant to a clean 1.5 mL EP tube with a micropipettor.
Proceed to downstream applications, or store the DNA at -20 °C .

Determine the DNA yield

9 Measure absorbance at 230nm, 260nm, and 280nm, Calculate the A260/A280 and A230/A260 ratio.