

Extraction of DNA from blood samples using QIAamp DNA mini kit (Qiagen)

Qiagen

Abstract

DNA is extracted from peripheral blood using QIAamp DNA mini kit (Qiagen) in accordance to the blood and body fluid protocol of the user manual supplied with the kit.

Citation: Qiagen Extraction of DNA from blood samples using QIAamp DNA mini kit (Qiagen). **protocols.io**
dx.doi.org/10.17504/protocols.io.ihfcb3n

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Materials

 Ethanol 100% by Contributed by users

Protocol

Step 1.

Add 20µl of Qiagen protease in to a 1.5ml micro-centrifuge tube

Step 2.

Add 200µl of whole blood into the same 1.5ml micro-centrifuge tube

Step 3.

Add 200µl of buffer (AL) and mix by pulse vortexing for 15 seconds

Step 4.

Incubate the solution in a water bath of 56 °C for 10 minutes

Step 5.

Then briefly centrifuge the tube to remove drops from the inside of the lid

Step 6.

Add 200µl of ethanol (100%) to the sample and mix again by pulse vortexing for 15 seconds. Then briefly centrifuge the mixture

Step 7.

Then transfer the mixture carefully into a QIAamp mini spin column (in a 2 ml collection tube) without wetting the rim

Step 8.

Close the cap and centrifuge the tube at 8000rpm for 1 minute

Step 9.

Then place the QIAamp mini spin column in a clean 2 ml collection tube and discard the tube containing the filtrate

Step 10.

Add 500µl of buffer (AW1) without wetting the rim and centrifuge at 8000 rpm for 1 minute after closing the cap

Step 11.

Then place the QIAamp mini spin column in a clean 2ml collection tube and discard the tube containing the filtrate

Step 12.

Add 500µl of buffer (AW2) without wetting the rim and centrifuge at 14,000 rpm for 3 minutes

Step 13.

Then place the spin column in a new 2ml collection tube and discard the collection tube with the filtrate

Step 14.

Centrifuge the spin column with the collection tube again at 14,000rpm for 1 minute

Step 15.

Place the QIAamp mini spin column in a clean 1.5ml micro-centrifuge tube and discard the collection tube containing the filtrate

Step 16.

Then add 200µl of elution buffer (AE) and incubate at room temperature for 1 minute. Then centrifuge the mixture at 8000rpm for 1 minute

Step 17.

Discard the QIAamp mini spin column and store the micro-centrifuge tube containing the eluted DNA

at -80°C