



Product Application

Automated RNA Purification from Bone Marrow Aspirate

Purify high quality RNA from bone marrow aspirates using the Maxwell® RSC simplyRNA Blood Kit (Cat.# AS1380).

Kit: Maxwell® RSC simplyRNA Blood Kit (Cat.# AS1380)

Analyses: Absorbance, dye-based quantitation, RNA
ScreenTape analysis

Sample Type(s): Human bone marrow aspirate

Input: 50-300µl

Materials Required:

- Maxwell® RSC Instrument (Cat.# AS4500)
- Maxwell® RSC simply RNA Blood Kit (Cat.# AS1380)
- ClickFit Microtube, 1.5ml (Cat.# V4741)

This protocol was developed by Promega Applications Scientists and is intended for research use only.

Users are responsible for determining suitability of the protocol for their application.

Further information can be found in Technical Manual #TM417, available at: www.promega.com/protocols

or contact Technical Services at techserv@promega.com

Best Practice Tip: Bone marrow aspirates are extremely viscous. Consider using wide-bore pipette tips for sample transfer.

Protocol:

1. Aliquot 50-300µl of bone marrow aspirate into a new 1.5ml ClickFit tube.
2. Add 3x sample volume of Cell Lysis Solution and invert to mix.
3. Complete purification following #TM417 starting at section 3.B, step 3.

Results:

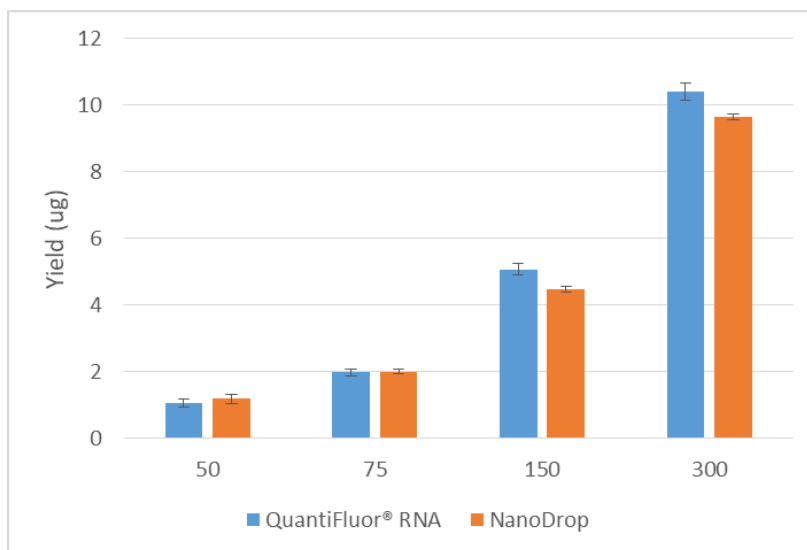


Figure 1: RNA purification from bone marrow aspirate using the Maxwell® RSC simplyRNA Blood Kit (Cat.# AS1380). Quantitation using either Quantifluor® RNA System (Cat.# E3310) or by absorbance on the NanoDrop™ spectrometer gives similar results. Data are shown as Mean ± StDev of N=3

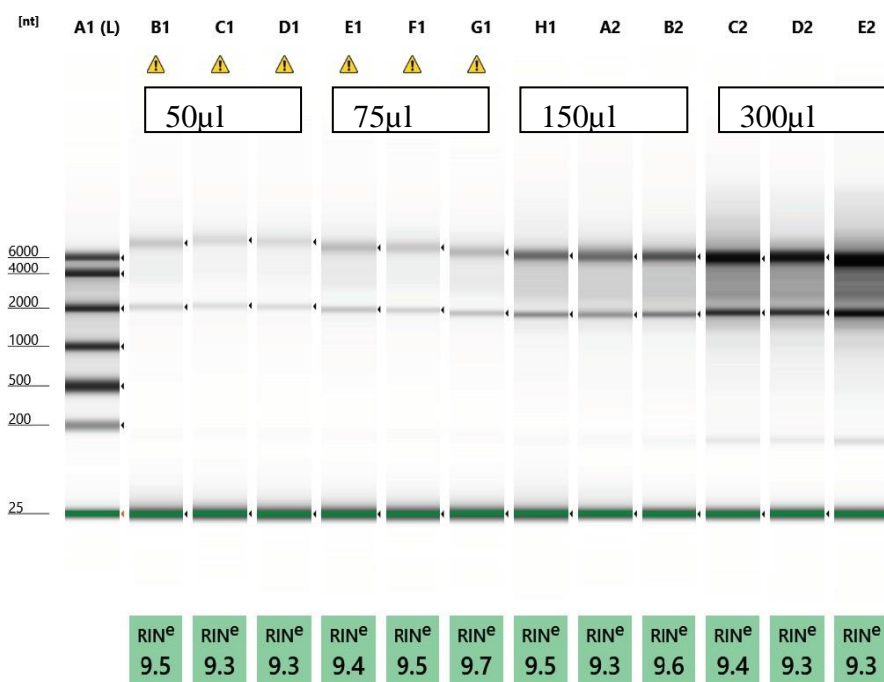


Figure 2: Bone marrow aspirate RNA purification using the Maxwell® RSC simplyRNA Blood Kit (Cat.# AS1380). TapeStation RNA analysis using the RNA ScreenTape System. All analyzed samples had RIN values >9 indicating high quality RNA. The 50 and 75ul bone marrow purifications dropped slightly below the recommended concentration threshold of the RNA ScreenTape System resulting in the alerts in the first 6 sample lanes.