Promega

Product Application

Stability of DNA extracted from Blood samples using the Maxwell® RSC Instrument

DNA was extracted from different blood samples and the stability of DNA was assessed after 2 months of storage at different temperatures.

Kit: Maxwell® RSC Blood DNA Kit (Cat.# AS1400)

Analyses: Gel electrophoresis, PCR

Sample Type(s): Blood

Input: 300µl

Materials Required:

- Maxwell® RSC Instrument (Cat.# AS4500)
- Maxwell® RSC Blood DNA Kit (Cat.# AS1400)
- 1kb DNA Ladder (Cat.# G5711).
- 100bp DNA Ladder (Cat.# G2101).
- GoTaq® Hot Start Polymerase (Cat.# M5001)

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.

For further information, see Technical Manual TM419, available at: **www.promega.com/protocols**

or contact Technical Services at: **techserv@promega.com**

Protocol:

1. DNA from two blood donors was extracted using the Maxwell® RSC Instrument and the Maxwell® RSC Blood DNA Kit following the technical manual (TM419). Ten extractions were performed for each donor.
2. DNA were stored at different temperatures for 2 months: -80°C, -20°C, 4°C, room temperature and 37°C (2 extractions tubes for each donor were stored at each temperature).
3. The DNA stability was then attested by running an 1% agarose gel using 2µl of DNA samples the day of the extraction, after 1 month of storage and after 2 months.
4. A PCR was performed on DNA samples using the GoTaq® Hot Start Polymerase and GAPDH primers to access the amplifiability of DNA using 2µl of DNA samples the day of the extraction, after 1 month of storage and after 2 months.

Results:

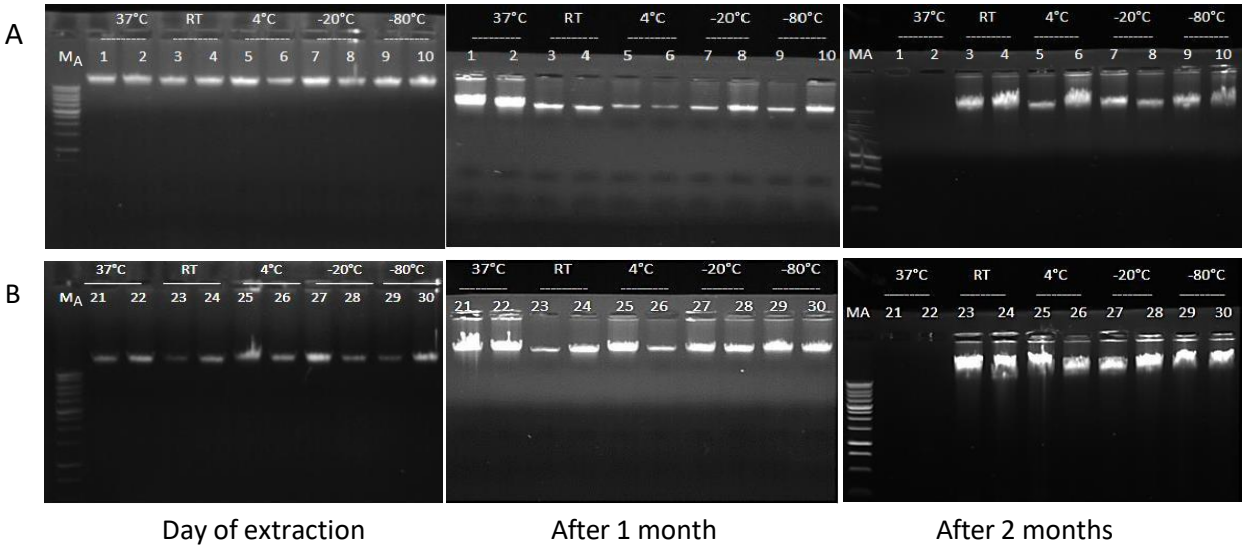

Figure 1. 1% agarose gel of 2µl of DNA extracted from blood samples (donor A and B) using the Maxwell® RSC Blood DNA Kit (Cat.# AS1400) on the Maxwell® RSC Instrument (Cat.# AS4500). DNA was loaded on the gel the day of extraction, after 1 and 2 months of storage at different temperatures. Note: After 2 months at 37°C all the samples were evaporated so DNA was not loaded on the gel. MA: 1kb DNA ladder (Cat.# G5711). N=2 extractions per storage condition.

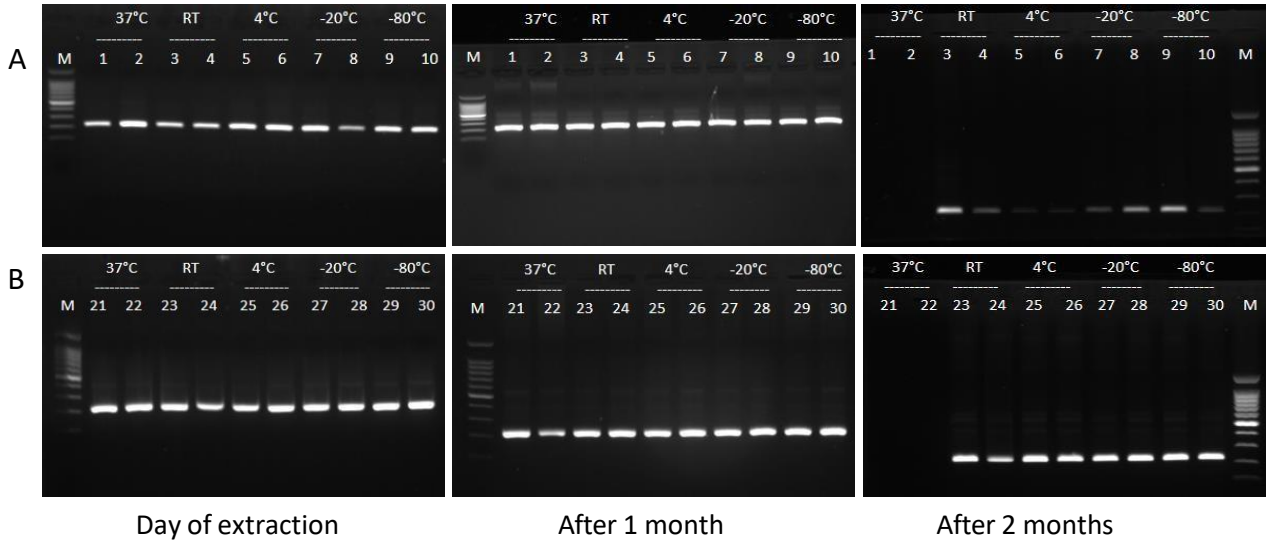

Figure 2. 1% agarose gel of PCR amplification products from DNA extracted from blood samples (donor A and B) using the Maxwell® RSC Blood DNA Kit (Cat.# AS1400) on the Maxwell® RSC Instrument (Cat.# AS4500). DNA was amplified the day of extraction, after 1 and 2 months of storage at different temperatures using the GoTaq® Hot Start Polymerase (Cat.# M5001) and GAPDH primers. Note: After 2 months at 37°C all the samples were evaporated so DNA was not amplified. M: 100bp DNA ladder (Cat.# G2101). N=2 extractions per storage condition.