NucleoSave Cards

Convenient storage of blood samples at room temperature

NucleoSave

Blood Storage Cards
- storage at room temperature
- stabilizes DNA
- used equivalent to FTA® Classic Card application

BIOKÉ
sharing knowledge
Plesmanlaan 1d
2333 BZ Leiden
The Netherlands
T. +31 (0)71 568 10 00
T. Belgium: 0800 71640
F. +31 (0)71 568 10 10
info@bioke.com
www.bioke.com

NucleoSave blood storage cards

✓ **Convenient storage at room temperature**
...no costly refrigeration
...no costly shipping on dry ice

✓ **Stabilizes DNA upon long-term storage**
...DNA collected on NucleoSave cards is stable for years
...a permanent solution

✓ **Easy extraction of preserved DNA with NucleoSpin® Tissue kit**
...reliable extraction system reduces the failure rates significantly
...high DNA yield and quality
...suitable for use in real-time PCR assays

NucleoSave Cards

Convenient storage of blood samples at room temperature

NucleoSave

Blood storage card

Stabilizes DNA and prevents damage upon long-term storage

Use of liquid blood samples always implicates storage and stability problems whenever the blood is not directly used as starting material for DNA extraction after blood withdrawal. Long-term storage of liquid whole blood requires freezer capacity (-20°C) as DNA has limited stability in whole blood at any higher temperatures. Especially if shipping of blood samples is required, it is difficult to guarantee maintenance of the cold chain.

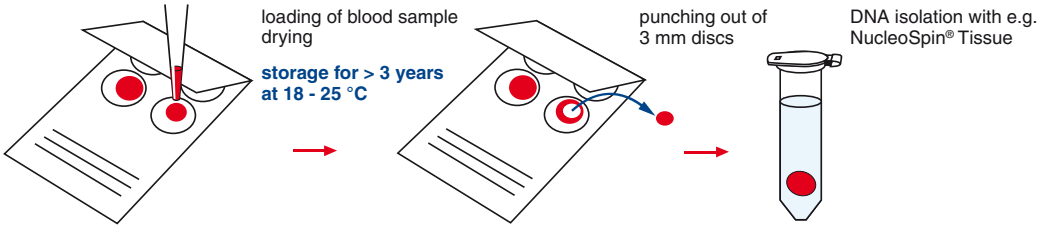
Nowadays downstream applications and detection systems are significantly improved in terms of sensitivity - thus less DNA is required for the downstream applications and a single blood spot includes sufficient DNA for genotyping.

NucleoSave blood storage cards guarantee long term storage of blood by a sophisticated impregnation of the specialized filter paper. This prevents DNA from damage and degradation upon storage. Genomic DNA isolated from blood samples stored on NucleoSave cards at room temperature for over 3 years has been successfully used for PCR, real-time PCR, and genotyping.

NucleoSave cards are not intended for diagnostic and therapeutic use. Distribution and use in the USA is prohibited for patent reasons.

Procedure

- Load up to 200 µl blood sample onto collection circles
- Let the card dry for 30-60 min and store at 18°C – 25°C.
- For DNA extraction punch out 3 mm disk and purify DNA with a reliable DNA purification kit, e.g. NucleoSpin® Tissue



Convenient storage of blood samples at room temperature

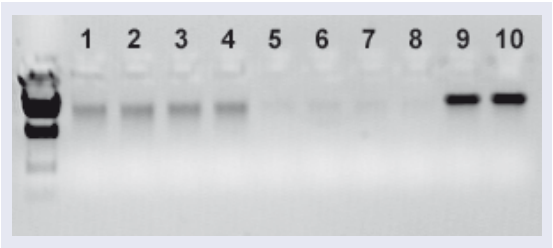
NucleoSave

Perfect in combination with reliable DNA purification kits
→ much lower risk of failure in downstream applications

NucleoSave Cards

Application Data

Isolation of genomic DNA from dried blood spots



Blood samples were stored on NucleoSave cards and on storage cards of competitor W, respectively. The cards were stored for 24 months at room temperature and genomic DNA was subsequently purified from three 3 mm punches per extraction following the NucleoSpin® Tissue support protocol. DNA was finally eluted in 100 µl whereof 10 µl were applied to the presented agarose gel. Typical DNA yields were 5-30 ng (NucleoSave cards) and 1-5 ng with product W. Typical DNA fragment lenghts were about 20 kb.

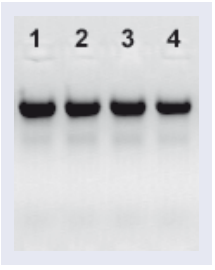
Lane 1-4: DNA isolated from NucleoSave cards; lane 5-8: DNA isolated from product W; lane 9-10: Genomic DNA purified from 20 µl of fresh blood as a reference.

NucleoSave blood storage cards result in very good yield and purity of integer genomic DNA – the combination of NucleoSave blood storage cards and the NucleoSpin® Tissue extraction kit is significantly superior to competitor W!

PCR amplification of gDNA purified from blood samples stored on NucleoSave cards

DNA was purified from blood samples stored for 24 months on a NucleoSave card, following the NucleoSpin® Tissue support protocol.

10 µl of the purified DNA were each used as template for a subsequent PCR amplification of a 5.2 kb fragment.

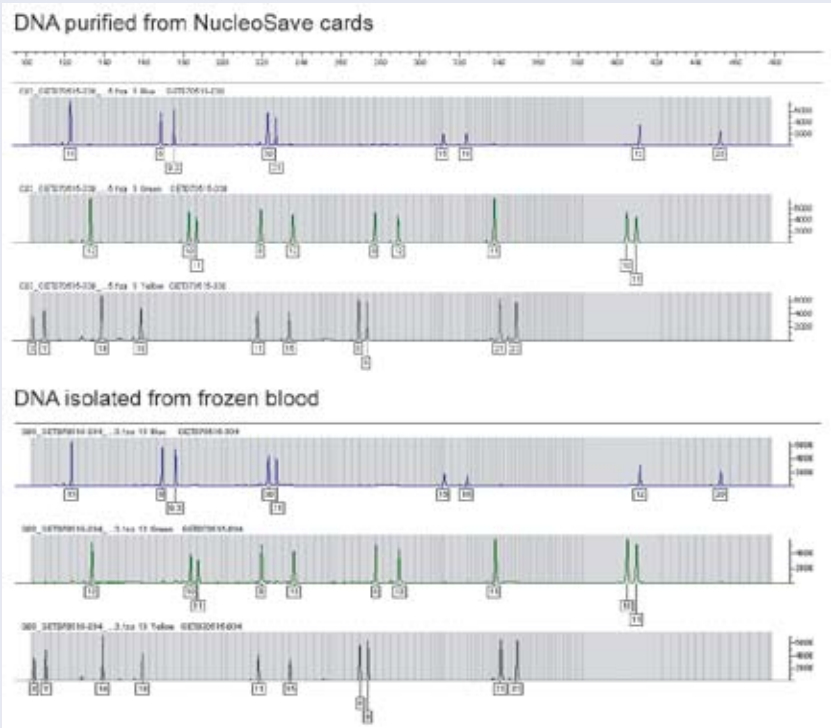


NucleoSave blood storage cards prevent DNA from damage and degradation upon storage. The subsequent DNA purification with NucleoSpin® Tissue results in high quality and integrity of the purified DNA - thus even amplification of very long DNA fragments is enabled!

STR analysis of gDNA purified from blood samples stored for three years on Nucleo Save cards

DNA was purified from NucleoSave cards following the NucleoSpin® Tissue support protocol. As a reference DNA was isolated from frozen blood which was stored for three years at -20°C. DNA was quantified by real-time PCR using the ABI Quantifiler™ Human DNA quantification kit. STR analysis was performed using the Promega Powerplex® 16 System. 1 ng of DNA was used for amplification. (Data kindly provided by Dr. R. Schubbert, Eurofins Medigenomix GmbH, Martinsried, Germany).

All STR loci could be amplified, no inhibition was observed. Results obtained from NucleoSave card stored blood are in agreement with results obtained from frozen stored blood.



Storage of blood samples on NucleoSave blood storage cards and subsequent DNA purification with NucleoSpin® Tissue results in high DNA quality. The ideal starting material for Real-time PCR!

Ordering Information:	Cat. No.
NucleoSave (10/100 cards)	740403.10 / .100
NucleoSpin® Tissue (10/50/250 preps)	740952.10 / .50 / .250

Distributed by:

KATEN300045
NuSave Cards en1/10/0.6.2008 PD
Printed in Germany

For more information regarding the use of MN products, please contact your local representative or visit MN directly: ***www.mn-net.com.***

NucleoSave Cards

MACHEREY-NAGEL

MACHEREY-NAGEL GmbH & Co. KG · Neumann-Neander-Str. 6-8 · 52355 Düren · Germany

Germany
Tel.: +49 (0) 2421 969-270
e-mail: tech-bio@mn-net.com

USA
Tel.: +1 484 821 09 84
e-mail: sales-us@mn-net.com

France
Tel.: +33 (0) 388 682268
e-mail: sales-fr@mn-net.com

Switzerland
Tel.: +41 (0) 62 388 55 00
e-mail: sales-ch@mn-net.com