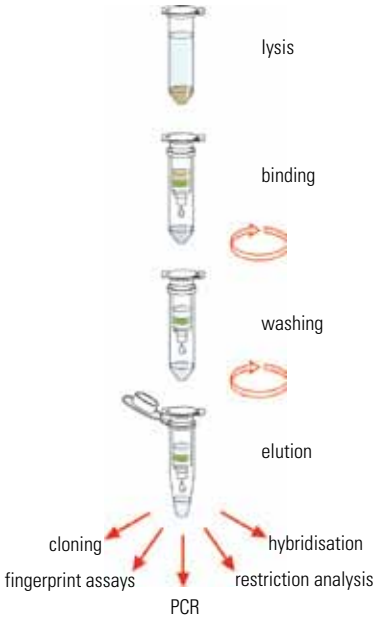
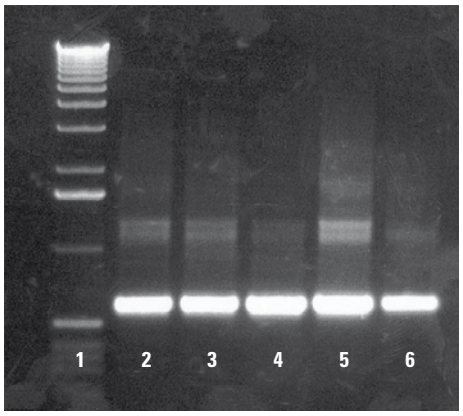
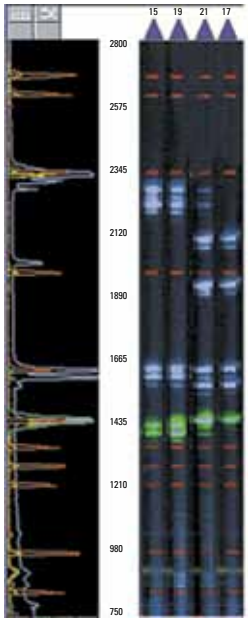
NucleoSpin®Tissue procedure





Agarose gel electrophoresis of a 620bp amplified fragment from different primate species
Genomic DNA was isolated from hair samples using NucleoSpin® Tissue
1: Marker
2: Gorilla gorilla graueri
3: Gorilla gorilla gorilla
4: Semnopithecus entellus
5: Trachypithecus poliocephalus (museum sample)
6: Pygathrix nemaeus



Analysis of genomic DNA from forensic samples (blood and epithelial cells of a rape victim, semen and blood of the suspect)
Gel picture of amplified DNA from 3 STR loci, separated with the ABI 377 sequencer.
Lane 15: Blood sample (victim)
Lane 19: Epithelial cells (victim)
Lane 21: Epithelial/semen sample (victim/suspect)
Lane 17: Blood sample (suspect)
Sample preparation (differential lysis): After lysis of the epithelial cells and separation of semen cells the DNA of the suspect was purified with NucleoSpin® Tissue.
Data kindly provided by Dr S West, LKA Nordrhein-Westfalen, Düsselforf, Germany.

DNA purification kits, genomic, NucleoSpin® Tissue

LE

MACHEREY-NAGEL

Total DNA extraction possible from: Tissue (e.g. mouse tails); Cells (e.g. bacteria); Clinical samples (stool, urine, biopsy samples); Forensic samples (dried blood spots, hair, buccal swabs, cigarette filters).

- Even very small amounts of DNA can be bound reversibly to the membrane (forensic analysis)
- Silica membrane technology
- Sample size: up to 25mg to tissue or 10^7 cells
- Yield: up to 35µg genomic DNA
- Elution volume: 60µL to 100µL
- Binding capacity: 60µg
- Preparation time: 20min/4 to 6 preps
- Format: mini spin columns
- Spin columns can be closed – no cross-contamination
- No use of organic solvents
- Highly pure nucleic acids suitable for all common downstream applications

NucleoSpin® Tissue is designed for the rapid purification of highly pure genomic DNA from tissue samples, mouse tails, bacteria, yeast, forensic samples and clinical samples.
Up to 35µg of high purity genomic DNA can be prepared (typical yields from tissue or cells: 15 to 25µg). The obtained DNA can be used directly for PCR*, Southern blotting or any kind of enzymatic reaction. With the NucleoSpin® Tissue method, lysis is achieved by incubation of the samples in a solution containing SDS and proteinase K at 56°C. Appropriate conditions for binding of DNA to the silica membrane of the NucleoSpin® Tissue columns are created by addition of large amounts of chaotropic ions (buffer B3) plus ethanol to the lysate. The binding process is reversible and specific for nucleic acids. Contaminations are removed by efficient washing. Pure genomic DNA is finally eluted under low ionic strength conditions in a slightly alkaline elution buffer and is ready to use for subsequent reactions.

Kit components: NucleoSpin® Tissue columns, 2mL collecting tubes, buffers, proteinase K.

For further information on this product please contact Customer Services, details can be found on the inside front cover.

Protocols are available for the isolation of

Genomic DNA, eg. from	Viral DNA, eg.	Bacterial DNA, eg.
Human or animal tissue	CMV from stool	Mycobacterium tuberculosis or Legionella pneumophila from sputum or brochoalveolar lavage
Mouse or rat tails	CMV from urine	EHEC bacteria from food (eg. fresh cows' milk)
Bacteria		Chlamydia trachomatis from cultures, biological fluids or clinical specimens
Yeast		Borrelia burgdorferi from urine
Dried blood spots (Guthrie cards)		
Hair roots		
Paraffin-embedded tissue		
Stool		
Insects		
Dental swabs		
Buccal swabs		

Catalogue No	Alt. No	Description	Preps per kit
NZ74095210	740952.10	NucleoSpin® Tissue kit	10
NZ74095250	740952.20	NucleoSpin® Tissue kit	50
NZ740952250	740952.250	NucleoSpin® Tissue kit	250

Accessories

Catalogue No	Alt. No	Description	Quantity
NZ74094025	740940.25	Lysis buffer T1 25mL	25mL
NZ740921	740921	Wash buffer B5 20mL	20mL
NZ740922	740922	Wash buffer BW 100mL	100mL

*Polymerase Chain Reaction (PCR) is a process covered by patents owned by Hoffman-La Roche