PCR clean-up and gel extraction kits, NucleoSpin® Extract II

LE

MACHEREY-NAGEL

For direct purification of PCR* products and extraction of DNA from agarose gels.

- Silica membrane technology
- Yield: 70% to 95%
- Sample material: <400µL PCR reaction mixture; <400mg TAE/TBE agarose gel
- High recovery of fragments 65bp to 10kb
- Elution volume: 15µL to 50µL
- Binding capacity: 25µL
- Preparation time: 10min/6 preps
- Format: mini spin column

The NucleoSpin® Extract II procedure is the easiest way to purify DNA fragments from agarose gels as well as for direct purification of PCR products.
The purification procedure from enzymatic reactions (eg. PCR) allows fast and easy removal of enzymes, nucleotides, salts and other impurities. The NucleoSpin® Extract II columns provide convenient performance for PCR clean-up. After addition of binding buffer NT the mixture is applied onto the silica membrane. Contaminations are removed by a simple washing step with ethanolic buffer NT3. Pure DNA is finally eluted under low ionic strength conditions with slightly alkaline buffer NE (5mM Tris-HCl, pH8.5).
For DNA extraction from agarose gels the agarose gel slice is incubated with high-salt buffer and applied to a NucleoSpin® Extract II column. After centrifugation and subsequent washing the DNA can be eluted under low ionic strength conditions with slightly alkaline buffer NE (5mM Tris-HCl, pH8.5).

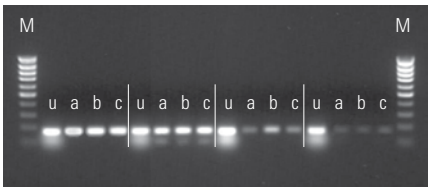
Kit components: NucleoSpin® Extract II columns, collecting tubes 2mL, buffers.

Catalogue No	Alt. No	Description	Preps per kit
NZ74060910	740609.10	NucleoSpin® Extract II kit	10
NZ74060950	740609.50	NucleoSpin Extract II (50 prep)	50
NZ740609250	740609.250	NucleoSpin Extract II (250 prep)	250

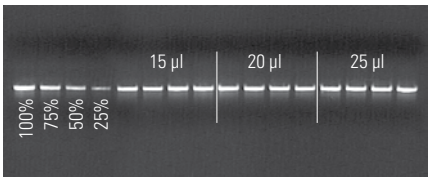
Accessories

Catalogue No	Alt. No	Description	Quantity, mL	Pack qty
NZ740614100	740614.100	Buffer NT	100	1
NZ7405951	740595.1	Buffer NTB	1,000	1
NZ740596100	740596.100	Buffer NT1	100	1
NZ740597	740597	Buffer NT2	50	2
NZ740598	740598	Buffer NT3, 5 x concentrate, final volume 100mL	20	1
NZ740595150	740595.1	Wash buffer NTB	150	1

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

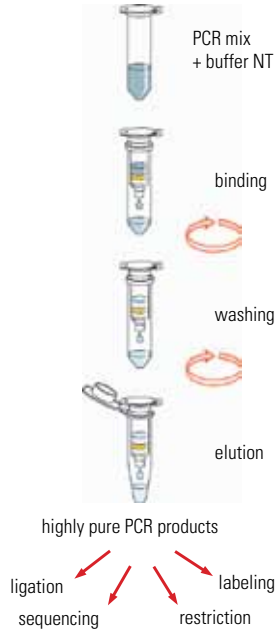


NucleoSpin® Extract II covers all polymerase buffer systems
A PCR fragment with a size of 165bp was amplified using different DNA polymerases (a to c). Additional primers were added and the mixture was purified using competitor kits from Q, S and R. The elution was performed with 25µL buffer NE. For analysis the complete eluate was loaded onto a 1% TAE agarose gel (u: unpurified).
In comparison to MN (NucleoSpin® Extract II) all other kits show lower recovery or inefficient removal of primers.
Please note that Q shows a comparable recovery but inefficient removal of primers!



High recovery for low elution volumes
A PCR fragment with a size of 782bp was purified from a 1% TAE agarose gel according to the standard protocol of NucleoSpin® Extract II using different elution volumes as shown. All eluates were adjusted to 25µL plus 4.5µL loading dye. For analysis the mixture was loaded onto a 1% TAE agarose gel. Recovery was estimated against reference samples (lane 1 to 4).
Even with an elution volume down to 1.5µL recovery of up to 75 to 100% can be achieved.

NucleoSpin® Extract II procedure
for purification of PCR products



NucleoSpin® Extract II procedure
for extraction of DNA from agarose gels