

NucleoMag[®] PCR

Rapid purification of DNA fragments using Gilson EXTRACTMAN[®]



Introduction

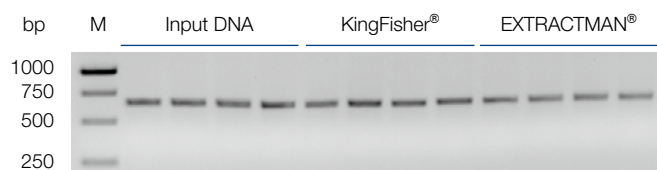
Most workflows in molecular biology require a DNA clean up at some point. Whether it is a PCR or a linearized plasmid, clean up of DNA fragments is – in terms of numbers – among the top methods performed in molecular biology laboratories. In order to perform this task as time and cost efficiently as possible MACHEREY-NAGEL developed the NucleoMag[®] PCR kit, which uses superparamagnetic particles for DNA purification.

Here, we present a new approach for the clean up of DNA fragments from small volumes of liquid combining the innovative design of EXTRACTMAN[®] (Figure 1) with the convenience of a DNA purification using MACHEREY-NAGEL's proven NucleoMag[®] technology. Due to its small size, off-grid usability, and portability, EXTRACTMAN[®] is ready whenever and wherever you need it.

Method

A 645 bp PCR fragment and a linearized pCDNA plasmid (5.4 kbp) were purified in four replicates per run using the NucleoMag[®] PCR kit on Gilson EXTRACTMAN[®]. Results were compared to extractions performed in an automated manner on a KingFisher[®] Flex magnetic particle separator.

Application data



Purification of PCR fragments

EXTRACTMAN[®] enables efficient purification of PCR fragments with the NucleoMag[®] PCR kit with a recovery rate comparable to an automated reference preparation.

Ordering information

| Product | Specifications | Preps | REF |
|----------------------------|--|---------|-----------|
| NucleoMag [®] PCR | NucleoMag [®] P-Beads, Elution Plate U-bottom, Self-adhering PE Foil, buffers | 1 x 96 | 744100.1 |
| | | 4 x 96 | 744100.4 |
| | | 24 x 96 | 744100.24 |

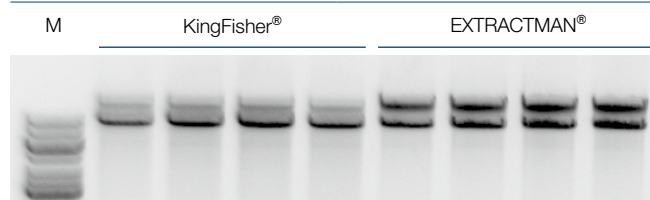
Product at a glance

| NucleoMag [®] PCR | |
|----------------------------|--|
| Technology | Magnetic bead technology |
| Sample material | ≤ 50µL reaction mixture or DNA in solution |
| Fragment size | 150 bp – 10 kbp |
| Typical recovery | 80-95 % |
| Elution volume | 25-100 µL |



Figure 1: EXTRACTMAN[®] for processing of magnetic bead-based molecular biology kits

| Gilson EXTRACTMAN [®] | |
|--------------------------------|--|
| Technology | Slide-based, magnetic bead extraction platform |
| Applications | Biomolecule purification (DNA, RNA, proteins) |
| Operation | Manual |
| Channels | 4 |



Purification of linearized plasmids

EXTRACTMAN[®] allows efficient purification of linearized plasmids from reaction mixtures with the NucleoMag[®] PCR kit. The final concentration is slightly higher than with an automated reference preparation due to a smaller elution volume.