| PuroMAG™ NGSPrep Magnetic Beads

The **PuroMAG™ NGSPrep Magnetic Beads** are designed for fast and highly effective DNA clean-up after polymerase chain reaction (PCR, qPCR, ddPCR), microarrays, sequencing and other types of ezymatic reactions by removing unincorporated primers, dNTPs (deoxynucleotide triphosphates), salts, and other impurities. Combination of SPRI technology and paramagnetic feature of the beads allows for specific size selection of DNA fragments during the clean-up procedure with high recovery of the DNA product. This is crucial application in library preparation for various sequencing techniques, including next-generation sequencing (NGS).

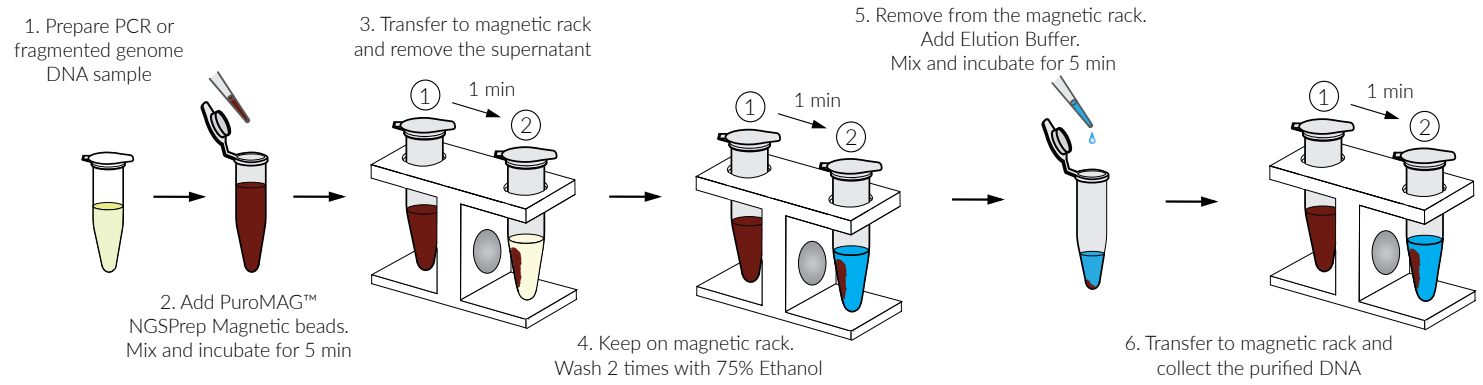
Features

- Easy and fast clean-up of DNA PCR samples with efficient recovery of the product
- Highly efficient size selection of purified fragmented genome or PCR product for NGS library prep
- High throughput clean-up of 96/384 samples
- Can be used on major automated platforms, such as: KingFisher™, Hamilton Microlab® STAR, MagMAX® 96
- Great quality with significant cost savings compared to competitor products
- Protocol identical to competitor products makes it easy to switch to PuroMAG™ NGSPrep Magnetic Beads

Product Description	Vol.	Mfr. No.	Thomas No.
PuroMAG™ NGSPrep Magnetic Beads	5 mL	NGSB-05	CHM11N916
	50 mL	NGSB-50	CHM11N917
	500 mL	NGSB-500	CHM11N918

Features	Specifications
Technology	SPRI paramagnetic bead-based technology
Starting material	PCR products, fragmented DNA
Starting amount	Variable
Recovery	>90% recovery for DNA >100 bp
Throughput	1-384 samples per run
Processing mode	Automated or manual
Downstream amplication	Sequencing, NGS, PCR, qPCR, Nucleic acid Labeling, Cloning, etc
Storage	4 - 8 °C

Experimental workflow



Competitor comparison

Capillary electrophoresis fragment analyzer summary of DNA post clean up at different Bead-to-Sample ratios:

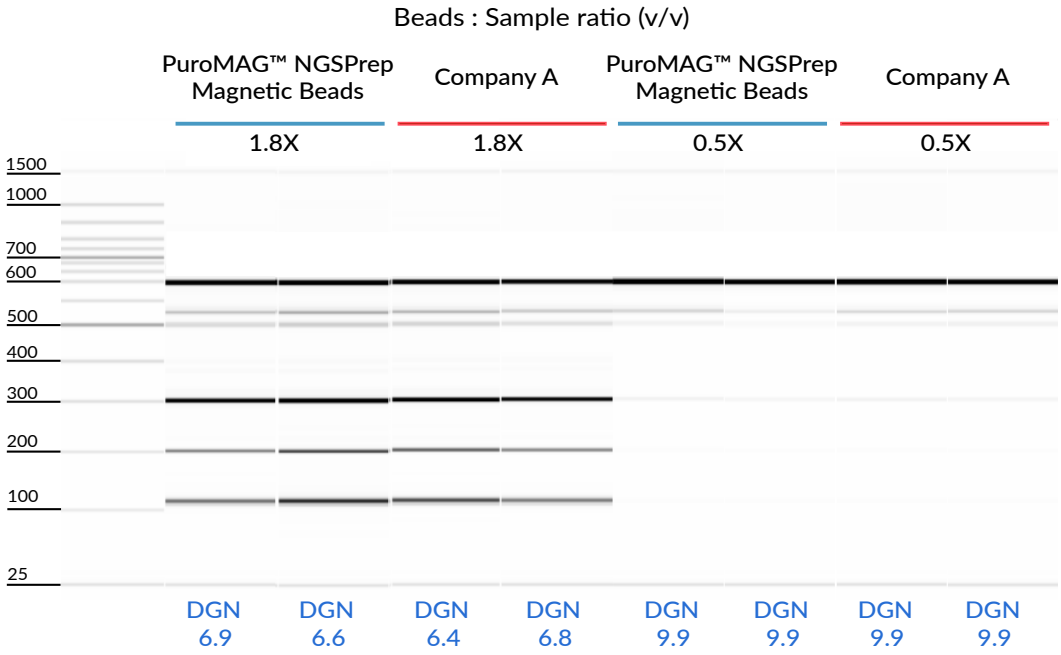


Figure 1. Luna Nanotech's NGSPrep Magnetic Beads provide efficient size selection of PCR DNA product. 50 µL mixture containing different sizes of PCR DNA products were purified with Luna Nanotech's PuroMAG™ NGSPrep magnetic beads and comparable beads from Company A according to the manufacturer's recommended protocol, in duplicates. The clean-up was performed with 1.8X (full-scale recovery) and 0.5X ratios of the beads to the PCR reaction sample (v/v). Purified DNA fragments were eluted in 40 µL of Elution Buffer (Tris-HCl, pH 8.5) and analyzed using Agilent 5200 Fragment Analyzer®. 25bp and 1500bp fragments were included for each sample as size markers for capillary electrophoresis.

Size selection of DNA products

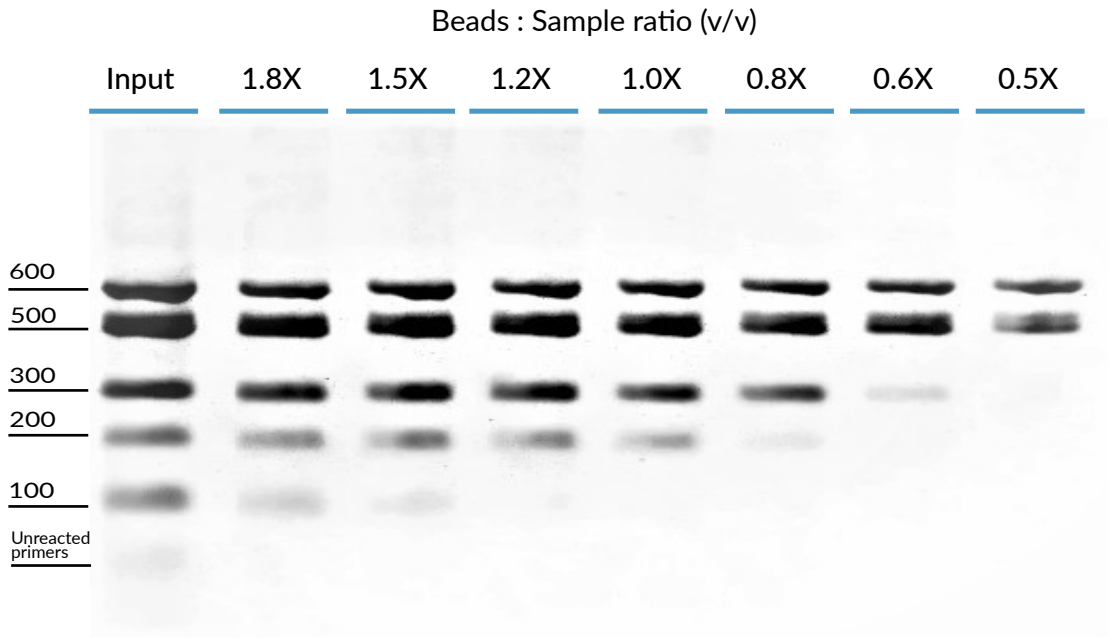


Figure 2. Luna Nanotech's PuroMAG™ NGSPrep Magnetic Beads provide efficient and precise single-sided size selection. 50 µL mixture containing different sizes of PCR DNA products were purified with Luna Nanotech's PuroMAG™ NGSPrep Magnetic beads at 0.5, 0.6, 0.8, 1.0, 1.2, 1.5 and 1.8X ratio of beads to the sample (v/v). Size selection of PCR product was determined by resolving it on a 1% w/v agarose gel and compared to an input of the unpurified sample.