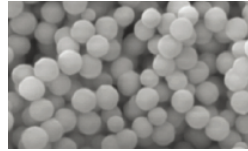
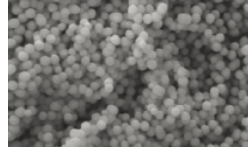
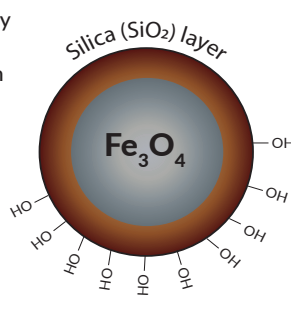




PuroMAG™ Silica Coated Magnetic Beads

- Superior DNA/RNA binding capacity
- Highly magnetic: <30 sec pull-down
- Low sedimentation rate
- High monodispersity
- Highly competitive pricing
- Long-term stability: >3 years at r.t.



Parameter	Value
Diameter:	400 - 550 nm
PDI:	0.05 - 0.1
Zeta potential:	-50 mV to -30 mV
Surface chemistry:	Silica (-OH)
Magnet collection time:	10 - 30 seconds
Color:	Light brown
Shelf life:	> 3 years
Storage buffer:	Water with 0.02% sodium azide
Storage conditions:	2-8 °C
Shipping conditions:	Ambient temperature

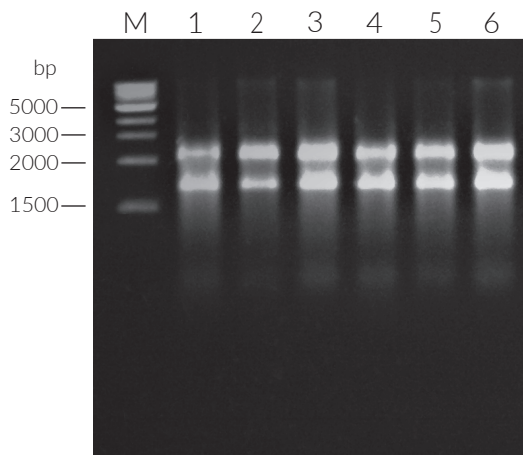
PuroMAG Silica-Coated Magnetic Beads are optimized for nucleic acid binding. Magnetite core allows the particles to be separated out of solution with magnets, allowing easy processing with magnetic racks or automated extraction systems.

Surface Chemistry Details:

Silica coating effectively adsorbs nucleic acids under high salt conditions. Nucleic acids can then be washed to remove impurities such as proteins and salts, and finally eluted into elution buffer or water. The eluted sample can then be used for such downstream applications as qPCR, or sequencing.

Description	Vol.	Mfr. No.	Thomas No.
PuroMAG™ Silica Coated Magnetic Beads, 500 nm	4 mL @ 10 mg/mL	NMG-101	CHM11N919

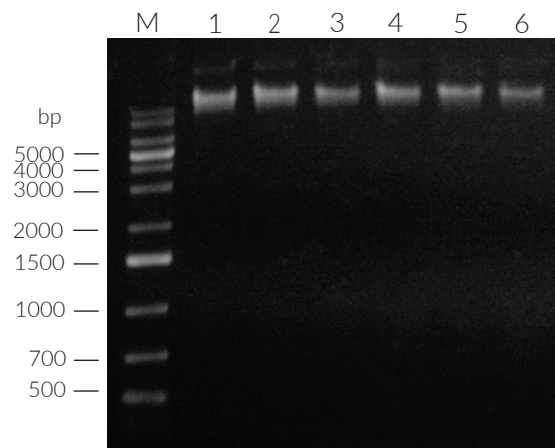
Purification of Total RNA from Bacteria



Sample	1	2	3	4	5	6
Conc. (ng/μL)	549.67	361.73	505.32	502.19	405.57	516.60
Yield (μg)	54.97	36.17	50.53	50.22	40.56	51.66
A _{260/280}	2.17	2.22	2.23	2.23	2.22	2.22
A _{260/230}	2.47	2.51	2.44	2.46	2.48	2.46

Figure 1. Total RNA was extracted from *Escherichia coli* using Luna Nanotech's PuroMAG™ Silica Coated Magnetic Beads. RNA samples were resolved on a 1% w/v agarose gel. Lane M represents the ThermoFisher Scientific™ GeneRuler 1kb Plus DNA Ladder.

Purification of Genomic DNA from Bacteria



Sample	1	2	3	4	5	6
Conc. (ng/μL)	47.78	50.77	52.1	48.34	40.52	51.81
Yield (μg)	4.78	5.08	5.21	4.83	4.05	5.18
A _{260/280}	1.51	1.59	1.54	1.54	1.51	1.68
A _{260/230}	0.65	0.74	0.68	0.66	0.60	0.59

Figure 2. Genomic DNA was extracted from *Escherichia coli* using Luna Nanotech's PuroMAG™ Silica Coated Magnetic Beads. DNA samples were resolved on a 1% w/v agarose gel. Lane M represents the ThermoFisher Scientific™ GeneRuler 1kb Plus DNA Ladder.

Purification of P11 Plasmid DNA from *E.coli* Bacteria

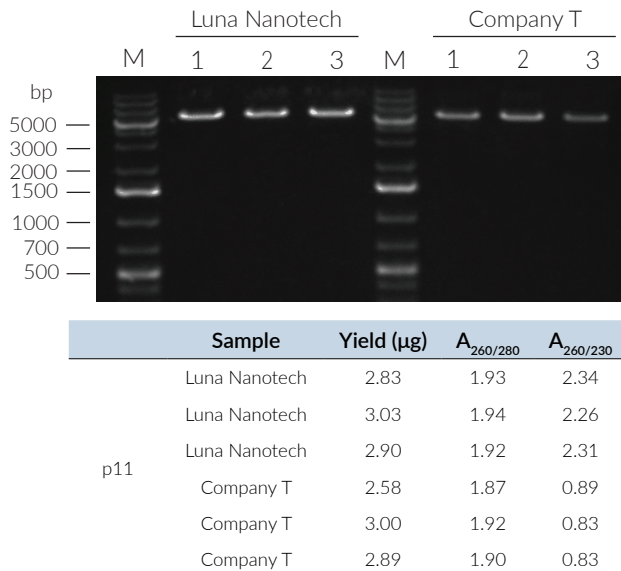


Figure 3. p11 plasmid DNA was purified from 1.5 mL of DHα *Escherichia coli* cultures using Luna Nanotech's PuroMAG™ Silica Coated Magnetic Beads using Luna Nanotech buffers and a comparable kit from Company T according to the manufacturer's recommended protocol, in triplicate. FastDigest BamHI was used to linearize the purified plasmid DNA (5704 bp) and all samples were resolved on a 1% w/v agarose gel.

Purification of PUC19 Plasmid DNA from *E.coli* Bacteria

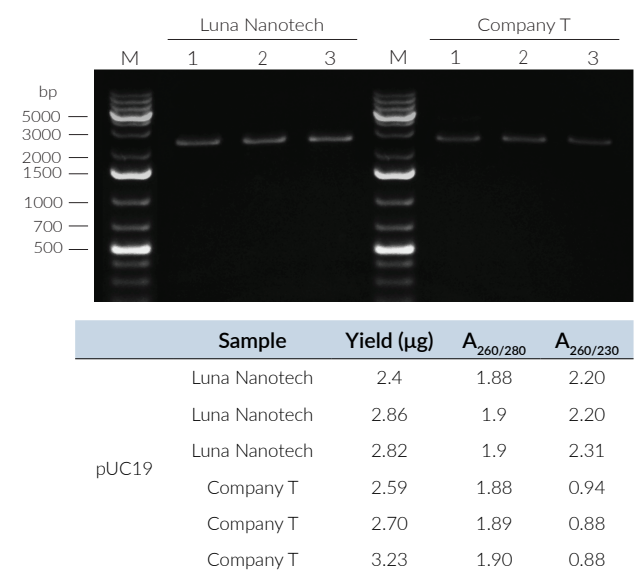


Figure 4. pUC19 plasmid DNA was purified from 1.5 mL of DHα *Escherichia coli* cultures using Luna Nanotech's PuroMAG™ Plasmid Miniprep kit and a comparable kit from Company T according to the manufacturer's recommended protocol, in triplicate. FastDigest HindIII was used to linearize the purified plasmid DNA (2686 bp) and all samples were resolved on a 1% w/v agarose gel.

Purification of Short DNA Fragments

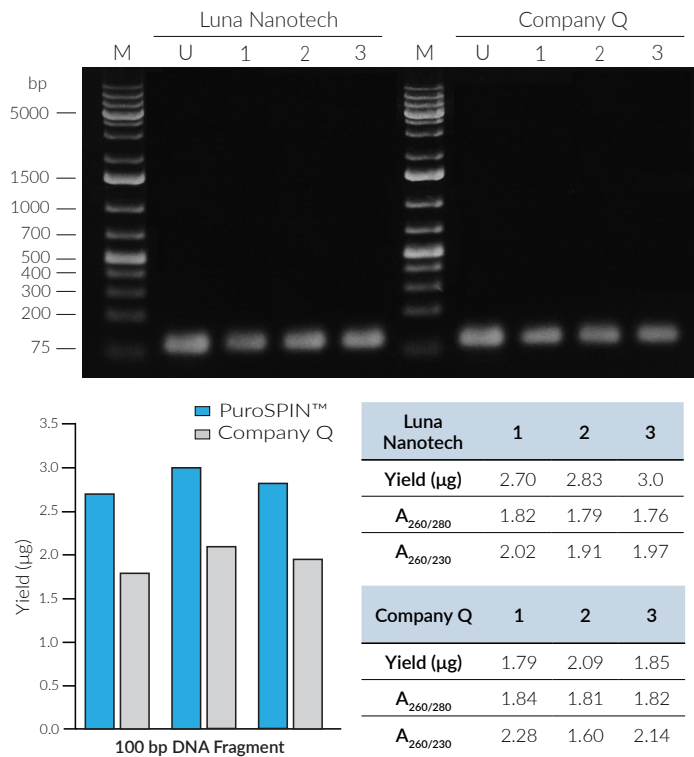


Figure 5. 100 bp DNA fragments were extracted from PCR reaction mixtures using Luna Nanotech's PuroMAG™ Silica Coated Magnetic Beads with Luna Nanotech buffers and a comparable kit from Company Q according to the manufacturer's recommended protocol, in triplicate. DNA samples were resolved on a 1% w/v agarose gel. Lane M represents the Thermo Scientific™ GeneRuler 1kb Plus DNA Ladder and Lanes U represent un-purified PCR product. DNA concentration and purity were measured using Thermo Scientific's NanoDrop™ One system.

Purification of Long DNA Fragments

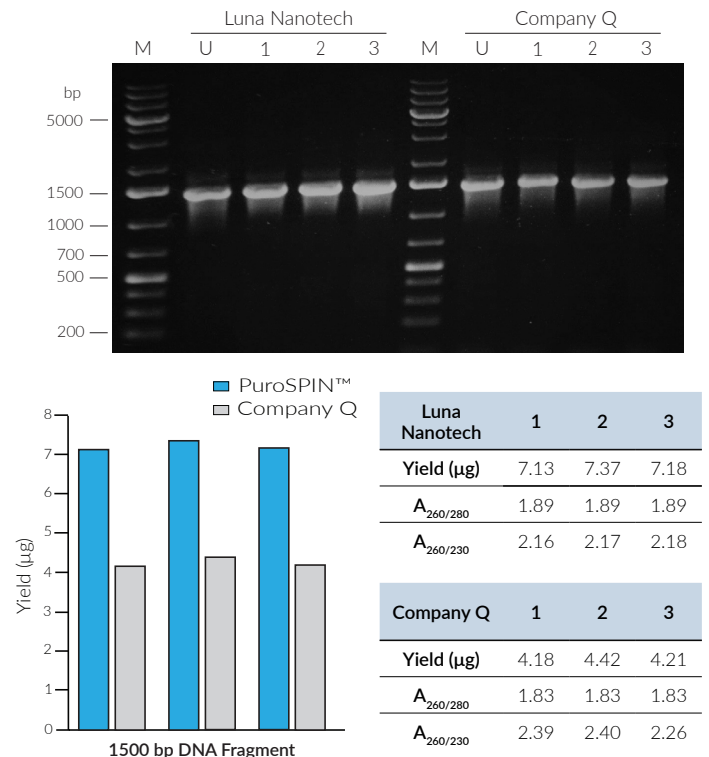


Figure 6. 1500 bp DNA fragments were extracted from PCR reaction mixtures using Luna Nanotech's PuroMAG™ Silica Coated Magnetic Beads using Luna Nanotech buffers and a comparable kit from Company Q according to the manufacturer's recommended protocol, in triplicate. DNA samples were resolved on a 1% w/v agarose gel. Lane M represents the Promega 1kb DNA Ladder and Lanes U represent un-purified PCR product. DNA concentration and purity were measured using Thermo Scientific's NanoDrop™ One system.