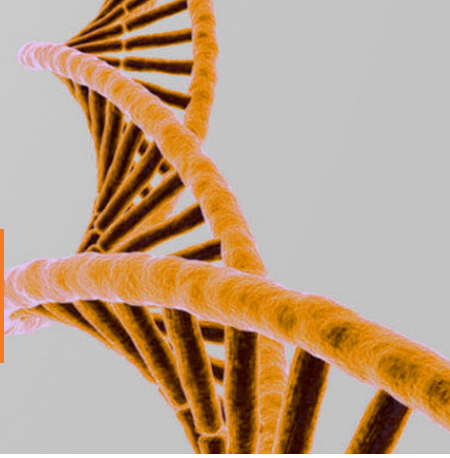
Clean Plasmid TR DNA Kit

MAGNETIC BEAD BASED PLASMID DNA PURIFICATION SYSTEM



Description

The Clean Plasmid TR DNA Kit is based upon our proprietary magnetic beads based system to extract high quality and endo toxin free plasmid DNA.

The system can easily be automated on many liquid handling workstations (e.g. Beckman, Hamilton, Tecan, Caliper, Perkin Elmer, Dynamic Devices, Agilent and Eppendorf) providing robustness and reproducibility.

Plasmid yields may vary according to E.coli strain used, plasmid copy number and growth conditions. Typically an overnight culture in 1 mL LB medium provides 10 up to 15 µg of plasmid DNA for high-copy plasmids. The isolated plasmid DNA is endotoxin free and directly suitable for transfections, Sanger sequencing, restriction enzyme digestion as well as other molecular biology procedures.

Procedure

Bacteria are resuspended and then lysed using our CleanNA buffer system. Once the lysis process has been stopped, the samples are centrifuged and a cleared supernatant is transferred into a new processing plate.

Optional, our lysate clearance beads can be used to clear the lysate from any cell debris. Plasmid DNA is then bound to our magnetic beads in presence of our binding buffer. The CleanNA particles are separated from solution using a magnetic device. After a few wash steps, the purified plasmid DNA is eluted from the beads using an elution buffer.

Downstream Applications

- Transfection
- PCR
- Sanger Sequencing
- Restriction digestion

Ordering Information

Catalog #	Product Description	Preps
CPLT-D0096	Clean Plasmid TR DNA Kit	96
CPLT-D0384	Clean Plasmid TR DNA Kit	384

Part #	Part Description
CPLT-CB0005	PLT Clearance Beads 5 mL
CPLT-CB0050	PLT Clearance Beads 50 mL

CLEAN NA

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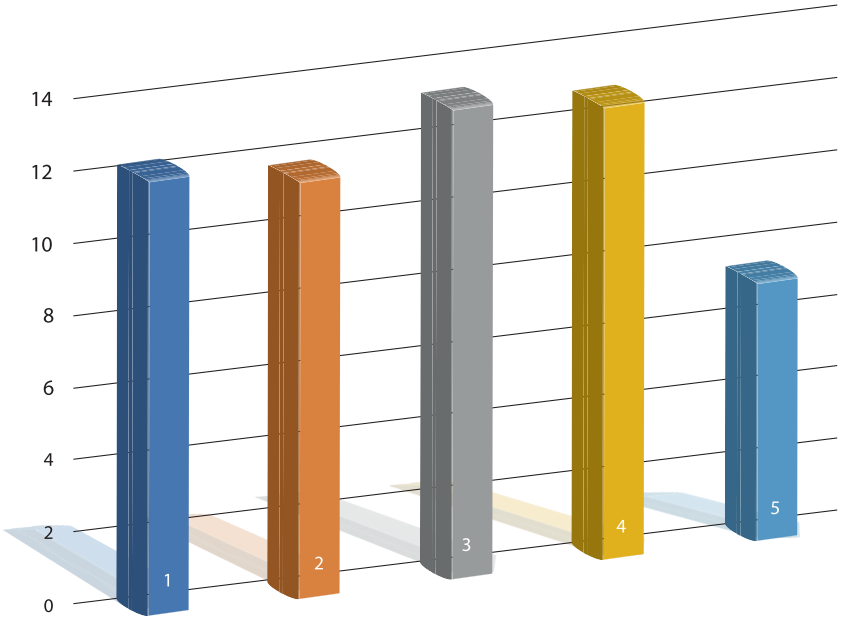

1 CleanNA, Clean Plasmid TR DNA Kit, using the lysate clearance beads

2 CleanNA, Clean Plasmid TR DNA Kit, using centrifugation

3 Company Q, spin column method

4 Company O, spin column method

5 Company P, magnetic bead method

Plasmid DNA Yield

Plasmid DNA was isolated from 0.8 mL cultures (LB medium) after a 24 hour incubation. Isolations were performed in triplo, according the manufacturers recommended protocols. Graph above is showing the average data from each kit. DNA yield (µg) has been determined using the Denovix DS-11 spectrophotometer.

Endotoxin levels in isolated Plasmid DNA

Plasmid DNA was isolated from 0.8 mL E. coli cultures (LB medium) after a 24 hour incubation. Isolations were performed in triplo, according the manufacturers recommended protocols. 50 µL of the eluted DNA was used in a Pierce LAL Chromogenic Endotoxin Quantitation Kit (Thermo Scientific), to determine the Endotoxin levels.

Isolation method used	EU/µg
CleanNA, Clean Plasmid TR DNA Kit	0.05
Company P, magnetic bead method	11.83
Company Q, spin column method	11.96

Comparative Analysis via Sanger Sequencing

Plasmid DNA was isolated from 0.8 mL cultures (LB Medium) after a 24 hour incubation. Each isolation was performed in triplo according the manufacturers recommended protocols. To determine the endotoxin levels, 2 µL of isolated plasmid DNA was using in a sequencing reaction. Sequencing reactions have been purified using CleanDTR and analyzed using an Applied Biosystems 3130XL instrument.

	Avg. Signal Intensity	CRL	QV20+
Clean Plasmid TR DNA Kit	180	721	720
Company P	136	720	705

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