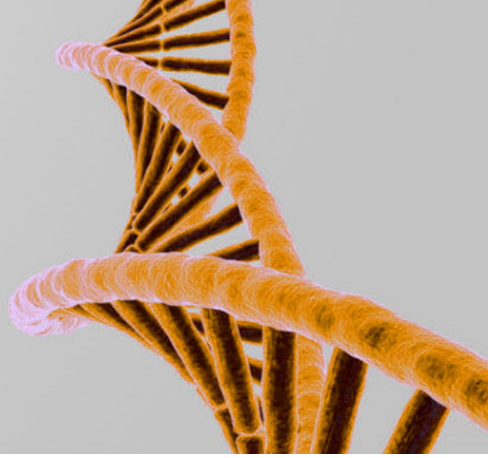
Clean Plant PK DNA Kit

MAGNETIC BEAD BASED PLANT DNA PURIFICATION SYSTEM



Description

The Clean Plant PK DNA Kit allows rapid and reliable isolation of high-quality genomic DNA from a wide variety of plant samples. The optimized buffer chemistry, including a Proteinase K treatment, allows the isolation of genomic DNA also from difficult plant species and tissues. The lysis and binding buffers are specifically designed to minimize co-purification of polysaccharides and polyphenols.

Our Clean Plant PK DNA Kit combines our propriety buffer system with the convenience of our CleanNA Particles to eliminate polysaccharides, phenolic compounds, and enzyme inhibitors from plant tissue lysates. This kit is designed for manual or fully automated high throughput preparation of genomic, chloroplast and mitochondrial DNA.

Purified DNA is suitable for PCR, restriction digestion, Next Generation Sequencing, and hybridization applications. There are no organic extractions thereby reducing plastic waste and decreasing hands-on time to allow multiple samples to be processed in parallel.

Procedure

Plant samples are disrupted in a homogenizer/ bead based milling equipment CPPK Lysis buffer and Proteinase K are added to lyse the sample including the more difficult plant cell walls. Supernatant is then transferred to a new processing plate where CleanNA Particles CPPK 1 are added to bind the DNA. Following a few wash steps, DNA is eluted from the CPPK 1 beads.

For samples which show coloration and/or a viscous eluate after isolation, an optional purification step can be performed. CleanNA Particles CPPK 2 and binding buffer are added to the eluted DNA, allowing re-binding of the genomic DNA. Following a few ethanol wash steps, DNA is eluted from the CPPK 2 beads ready for downstream applications.

Downstream Applications

- NGS
- PCR [1)]
- qPCR
- SNP Analysis
- Single Molecule Sequencing (Third generation)

Features & Benefits

- High quality DNA yield
- Excellent 260/280 and 260/230 ratios
- Fast and efficient protocol
- Scalable solution for isolation from various sample volumes
- Adaptable to many automated liquid handling workstations on the market

Ordering Information

Catalog #	Product Description	Preps
CPPK-D0096	Clean Plant PK DNA Kit	96
CPPK-D0384	Clean Plant PK DNA Kit	384

1) The PCR process is covered by patents owned by Roche Molecular Systems, Inc., and F.Hoffman-La Roche, Ltd.

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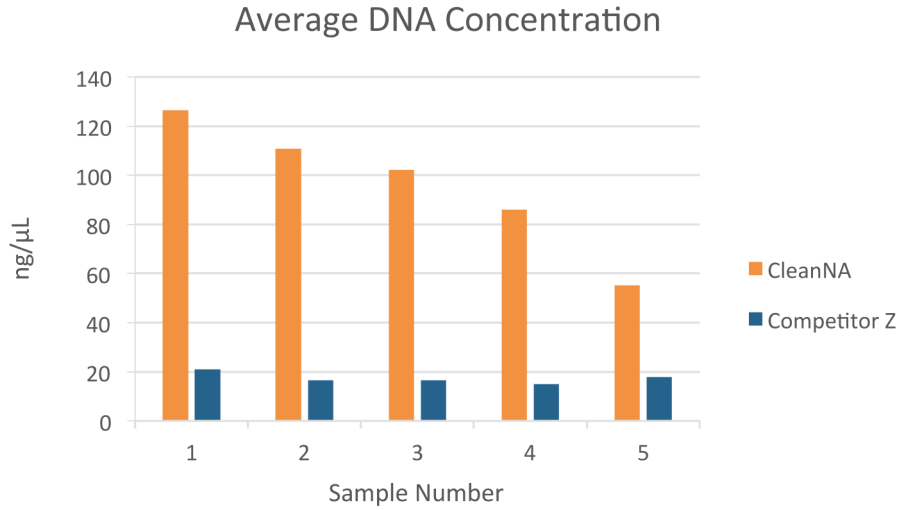
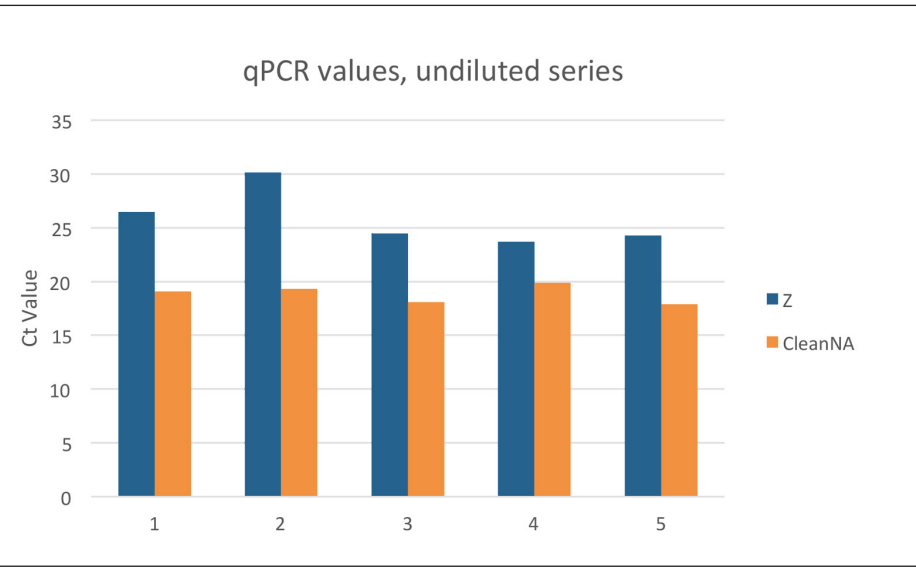
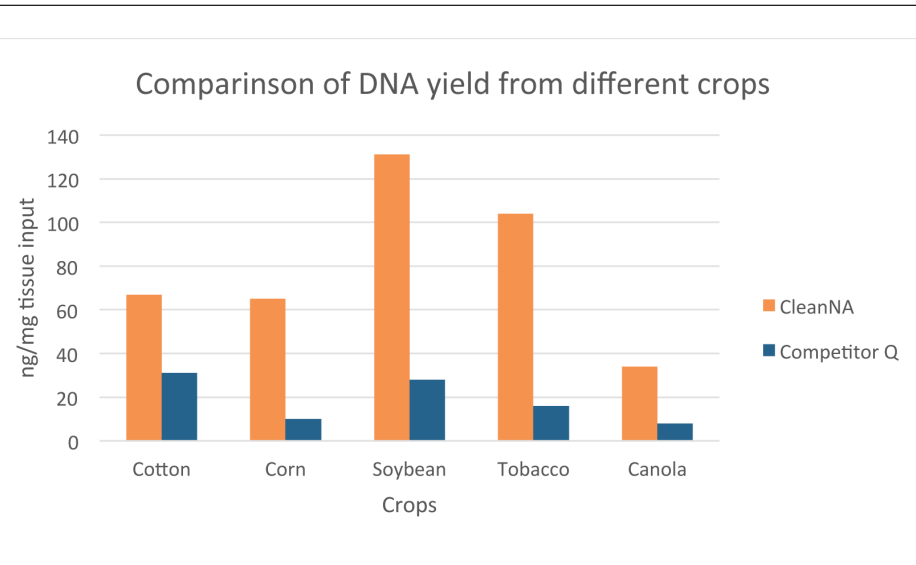


Genomic DNA was extracted from 30 mg Cacao leaf tissue using CleanNA's Clean Plant PK DNA Kit and Company Z using the Company's recommended protocols. DNA concentrations have been determined using the Denovix DS-11.



Genomic DNA isolated from Cacao using the CleanNA's Clean Plant PK DNA Kit and Competitor Z. The undiluted template has been used in a 20 µL SYBR qPCR reaction in triplicate. Ct values have been determined using the Agilent MX 3000.



Genomic DNA was extracted from 40-50 mg fresh leaf tissue collected from different crops. Extractions have been performed according manufacturers recommended protocol and eluted in 100 µL. DNA yield has been determined by PicoGreen quantification. The total yield has been divided by the total amount of tissue input to show ng of gDNA per mg of leaf tissue.

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