

Mag-Bind® Plant DNA DS 96 Kit

High-throughput DNA isolation of plant seed & leaf tissues utilizing magnetic beads

CAT NO: M1130



96 samples

96 samples can be processed in less than 1 hour



Robust Lysis

Reliable results from a variety of plant samples



Inhibitor-free DNA

Suitable for most downstream applications



Automatable

Adaptable on most open-ended liquid handlers

Cost-Effective

30% less than the competition on average

Mag-Bind® Plant DNA DS 96 Kit allows rapid and reliable isolation of high-quality genomic DNA from plants and other tissues that are particularly difficult to lyse or rich in polysaccharides or polyphenols. Up to 96 samples of 50 mg wet tissue (or 15 mg dry tissue) can be processed in parallel in less than 1 hour. This kit is magnetic bead-based and can be used for manual or fully automated purification of genomic, chloroplast, and mitochondrial DNA.

The purification procedure relies on the well-established properties of the cationic detergent, cetyltrimethyl ammonium bromide (CTAB), in conjunction with magnetic bead technology to provide high-quality DNA. The system eliminates the need for chloroform extractions traditionally associated with CTAB-based lysis methods, reducing consumables and hands-on time to allow multi-sample processing. The lysis and binding buffers are uniquely formulated to eliminate polysaccharides, phenolic compounds, and enzyme inhibitors to yield high-quality DNA. Purified DNA is suitable for PCR, restriction digestion, next-generation sequencing, and hybridization applications.

DNA Yield Comparison from Different Plant Types

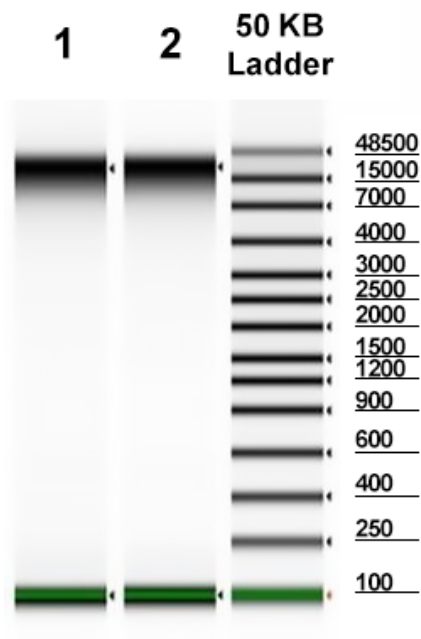
Type	Company Q (ng/ mg)	Omega Bio-tek (ng/mg)
Tobacco	12.3	19.4
Peanuts	6.3	52.9
Sunflowers	41.8	89.1
Oranges	4.6	31.2
Switchgrass	21.9	7.9
Peppers	6.9	111.0
Sugarcane	10.5	93.1
Oats	18.4	270.0
Wheat	0.5	152.3
Barley	9.6	198.1
Canola	3.4	59.0
Tomatoes	2.6	120.2
Grapes	1.9	212.4
Alfalfa	17.9	85.2
Corn	4.0	29.8
Sugar beets	20.2	34.0
Soybeans	26.8	25.4
Cotton	30.5	63.5
Potatoes	30.0	206.5

Table 1. DNA was extracted from approximately 50 mg of leaf sample using Omega Bio-tek's Mag-Bind® Plant DNA DS 96 Kit (M1130) and Company Q's kit following manufacturer's recommended protocols. Purified DNA was quantified using Promega's QuantiFluor® dsDNA system and normalized per mg of input plant material.

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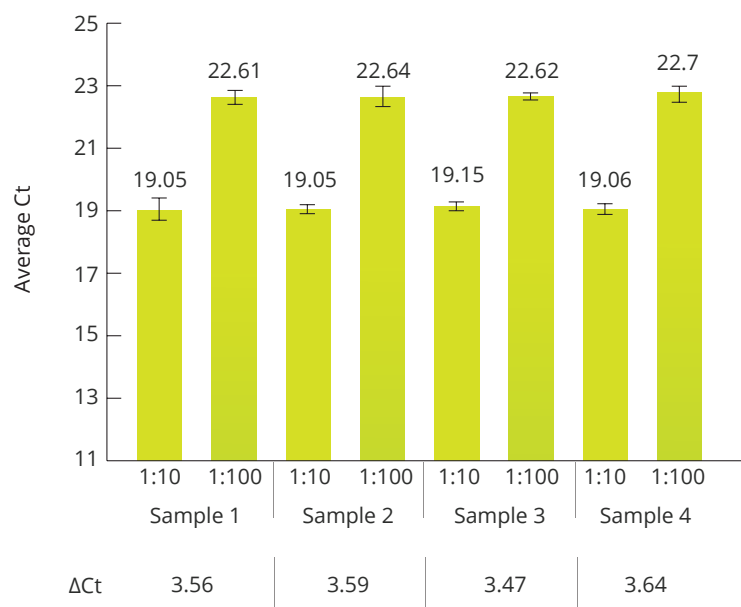
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TapeStation Analysis of DNA Purified From Barley

Figure 1. TapeStation® analysis of genomic DNA purified from barley using Omega Bio-tek's Mag-Bind® Plant DNA DS 96 kit (M1130). TapeStation® analysis software estimates the molecular weight of the purified DNA to be ~30kb.



PCR Analysis of Purified DNA

Figure 2. Genomic DNA was extracted from 30 mg canola leaf using the Mag-Bind Plant DNA DS 96 Kit (n=4). Real-time PCR with canola-specific primers was performed on triplicates of 10-fold and 100-fold dilutions of DNA. The ΔC_t value between 100-fold and 10-fold was ~3.3 for all the samples, demonstrating good PCR efficiency without inhibition.

Product Description	Preps	Cat No.
Mag-Bind® Plant DNA DS 96 Kit	1x96	M1130-00
	4x96	M1130-01

For free samples of any of our kits, visit www.omegabiotek.com

Important: If automating this procedure on a liquid handler or a magnetic processor, please contact your Omega Bio-tek representative for instrument-specific instructions.