

Specifications and Ordering Information

Table 2. Maxwell™ 16 Instrument Specifications

Processing Time	30–40 minutes (depending on sample type)
Sample Size	10–400µl, or up to 50mg (depending on sample type)
Number of Samples	up to 16
Weight	40lb (18kg)
Dimensions (W × D × H)	12.4 × 14.7 × 11.6 inches (314 × 374 × 295mm)
Power Requirements	100–240VAC, 50–60Hz, 2.1A

Ordering Information

Product	Size	Cat. #
Maxwell™ 16 Instrument	each	AS1000
Maxwell™ 16 Blood DNA Purification Kit	48 preps	AS1010
Maxwell™ 16 Cell DNA Purification Kit	48 preps	AS1020
Maxwell™ 16 Tissue DNA Purification Kit	48 preps	AS1030
Maxwell™ 16 Extended Basic Warranty	each	AS1003

A renewable, one-year extension of the Maxwell™ 16 Instrument limited warranty, up to three years total, warrants the product will be free from defects in materials and workmanship. If during the warranty period the instrument is discovered to be defective under normal use, Promega will be responsible for repair (or replacement at Promega's discretion) of the Maxwell™ 16 Instrument. See Extended Basic Warranty product insert for more information regarding warranty terms and limits.

Maxwell™ 16 Premium Warranty	each	AS1004
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A renewable, one-year Maxwell™ 16 Instrument warranty, up to three years total, warrants the product will be free from defects in materials and workmanship according to the terms of the limited warranty with the addition of:

- If during the warranty period the instrument is discovered to be defective, Promega will provide the use of a temporary replacement instrument during the instrument repair period.
- The premium warranty upgrades the terms of the basic warranty from the date of purchase.

See Premium Warranty product insert for more information regarding premium warranty terms and limits.

Maxwell™ 16 Extended Premium Warranty	each	AS1005
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A three-year Maxwell™ 16 Instrument warranty may be purchased that warrants the product will be free from defects in materials and workmanship according to the terms of the limited warranty with the addition of:

- If during the warranty period the instrument is discovered to be defective, Promega will provide the use of a temporary replacement instrument during the instrument repair period.
- The premium warranty upgrades the terms of the basic warranty from the date of purchase.
- The Extended Premium Warranty may not be renewed.

See Extended Premium Warranty product insert for more information regarding extended premium warranty terms and limits.

Maxwell is a trademark of Promega Corporation.

MagneSii is a registered trademark of Promega Corporation.

(a) U.S. Pat. Nos. 6,027,945 and 6,368,800, Australian Pat. No. 732756, Japanese Pat. No. 3253638, European Pat. No. 0 895 546 and Mexican Pat. No. 209436 have been issued to Promega Corporation for methods of isolating biological target materials using silica magnetic particles. Other patents are pending.



The Maxwell™ 16 Instrument Quick Start Guide takes you through eight easy steps to automate your low-throughput DNA purification. This laminated, magnetic guide can be attached to the side of your Maxwell™ 16 Instrument.

Maxwell™ 16

Automated Genomic DNA Purification

Save on Labor



Variety of Sample Types

Simple Operation

1–16 Samples

Consistent Results



Promega Corporation • 2800 Woods Hollow Road • Madison, WI 53711-5399 USA • Telephone 608-274-4330 • Fax 608-277-2601

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Maxwell™ 16 Instrument

Benefits

- **Recover Lost Time and Labor:** Automation eliminates time and labor spent on sample pre-processing and manual purification giving you the time to get your work done.
- **Gain Confidence in Your Results:** Instrument design, optimized reagents and automated methods provide consistent yield and purity.
- **Choose Your Sample Type:** Flexibility allows you to run blood, cells or tissue.
- **Save a day:** Eliminate grinding or proteinase K treatment; you directly process tissue and cells.

Simple Operation

The Maxwell 16 System provides everything you need for genomic DNA purification — instrument and reagents. All samples are added directly to the pre-filled reagent cartridge. You avoid time-consuming pre-processing.

Four simple steps from start to finish

1. Add tissue or liquid samples to reagent cartridge.
2. Place cartridge into the Maxwell 16 Instrument.
3. Press the Start Button.
4. DNA is eluted into Elution Buffer in about 30 minutes.

It's easy!

Easy Set-Up

Maxwell 16 comes with pre-installed optimized automated methods for each kit: no separate computer or training required. Enjoy true “plug and play” operation. The plunger action of the instrument grinds tissue samples directly in the lysis buffer in the reagent cartridge. Save hours to days over traditional protocols that use proteinase K treatment or manual tissue grinding processes.

Maxwell™ 16 Instrument Two Steps, Done in One Day



Other Methods Three Steps, Takes Up To Two Days



Figure 1. Comparison of time required for genomic DNA purification and analysis from tissue samples using the Maxwell™ 16 Systems and other methods. The Maxwell 16 System processes starting materials (tissue, cells or blood) and purifies DNA, eliminating lengthy proteinase K digestion or labor-intensive physical grinding prior to DNA purification. This provides analysis results up to 1 day faster than other methods.

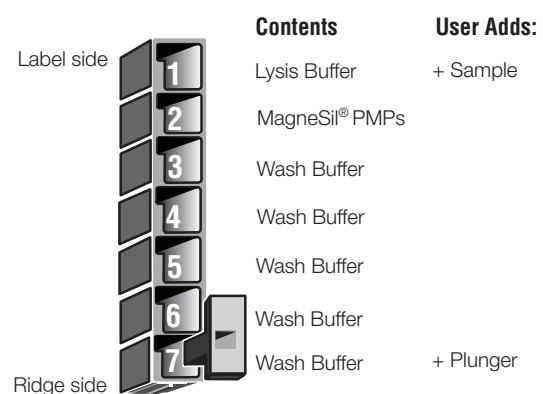


Figure 2. Content of pre-filled Maxwell™ 16 reagent cartridge.



Meet
Maxwell, Your
Personal Lab
Technician

Genomic DNA Purification Kits

Variety of Sample Types

Three optimized reagent kits are available for blood, cells or tissue. The kits contain all reagents in convenient pre-dispensed cartridges. You get consistent DNA yield and purity from mouse tails, animal tissue, whole blood, tissue culture cells, Gram-negative and Gram-positive bacteria, and plant leaf tissue. A single cartridge is used per prep and can be used for a range of sample amounts. Purified DNA is ready for PCR or other applications.

Table 1. DNA yield from various sample types after purification using the Maxwell™ 16 Instrument and DNA purification kits.

Sample Type	Sample Size	Yield
Whole blood	200µl	4–9µg (>3pg/white blood cell)
Whole blood	400µl	8–15µg (>3pg/white blood cell)
Mouse tail	1.2cm	at least 20µg
Animal tissue	20-25mg	60-100µg (mouse liver)
Tissue culture cells	5 × 10 ⁶	15–20µg (HeLa)
Gram- bacteria	2 × 10 ⁹	25–30µg (BL21)
Gram+ bacteria*	2 × 10 ⁹	15–25µg (<i>B.cereus</i>)
Plant leaf (tomato)*	25mg	9–13µg

*with optional pretreatment

Built-In Efficiency

The Maxwell 16 Instrument is a magnetic-particle handling instrument that purifies samples using MagneSil® Paramagnetic Particles^(a) (PMPs). The PMPs optimize capture, washing and elution of the target material. The efficient methods used by the Maxwell 16 Instrument provides consistent yield and purity. It avoids common problems associated with automated purification systems, such as clogged tips and partial reagent transfers. Most importantly, there is no detectable cross-contamination between samples. The small-footprint instrument uses minimal bench space and can be used inside a fume hood. The instrument allows easy installation of new or updated methods.

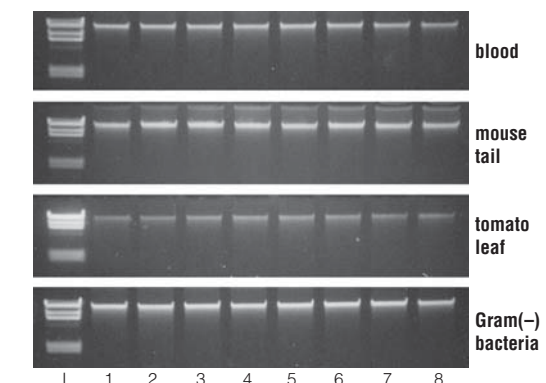


Figure 3. Consistent purification. 5µl of genomic DNA purified from human whole blood (400µl), mouse tail (1cm), tomato leaf (25mg) or Gram-negative bacteria (400µl of overnight culture). (L=Lambda/Hind III Ladder.)

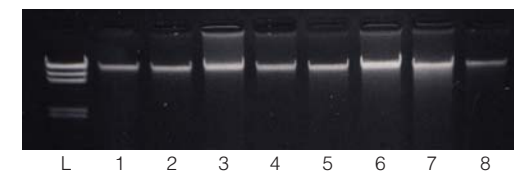


Figure 4. Tissue Panel. 5µl of genomic DNA purified from 50mg of the following mouse tissues. Lane 1, brain; Lane 2, heart; Lane 3, intestine; Lane 4, liver; Lane 5, pancreas; Lane 6, spleen; Lane 7, 1cm mouse tail clipping; Lane 8, 0.5cm mouse tail clipping; Lane L, Hind III Ladder.

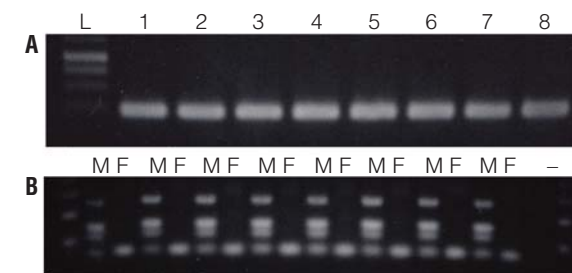


Figure 5. PCR Amplification. Panel A. Factor V PCR amplification of genomic DNA isolated from 200µl of a human whole blood sample purified using the Maxwell 16 System. 5µl of PCR product was visualized on a 1% agarose gel stained with ethidium bromide; eight replicates shown. (L= 100bp Ladder) **Panel B.** Cross-contamination assay. Multiplex-PCR amplification of purified genomic DNA from alternating male or female whole blood samples using the multiplex D reaction of the Y Chromosome Deletion Detection System, Version 2 (Cat.# MD1531). No male-specific amplification products are seen in female genomic DNA samples.