

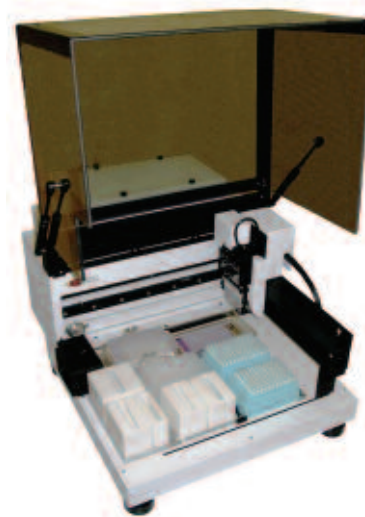
Automation Options

Corbett Robotics X-Tractor Gene™ Automated DNA Extraction Platform

Sigma-Aldrich has collaborated with Corbett Robotics to offer a turnkey solution for high-throughput genomic DNA purification. The X-Tractor Gene™ liquid handling system with silica membrane tube-strips or multi-well filtration plates from Corbett Robotics, in combination with our reagents, is a cost-effective system for purifying genomic DNA from up to 96 samples per run. This system has been used with a broad range of sample types including solid tissue, blood, urine, swabs, bacteria, and cultured cells. Purified genomic DNA is then suitable for all common downstream molecular biology applications.

Features and Benefits

- Consistency & Workflow
 - Validated, walk-away automated methods available
 - Reduce human error and free technician time
- Standardization
 - Between labs and runs
- Documentation
 - Pre- and Post-run reports
- Benchtop system
 - Small footprint
- Safety
 - No phenol/chloroform
 - All waste safely contained for disposal
 - Harmful vapors are filtered out
 - Work area completely enclosed by hood



For additional information on the X-Tractor Gene™, please visit www.corbettrobotics.com

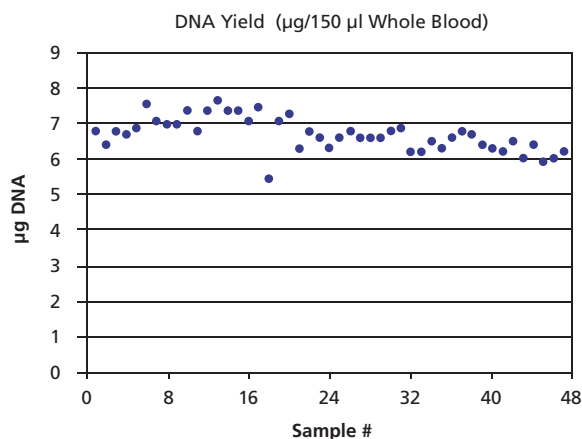


Figure 1. DNA yield from 150 μl of whole blood using the X-Tractor Gene automated DNA extraction platform with optimized X-Tractor Pack liquid reagents.

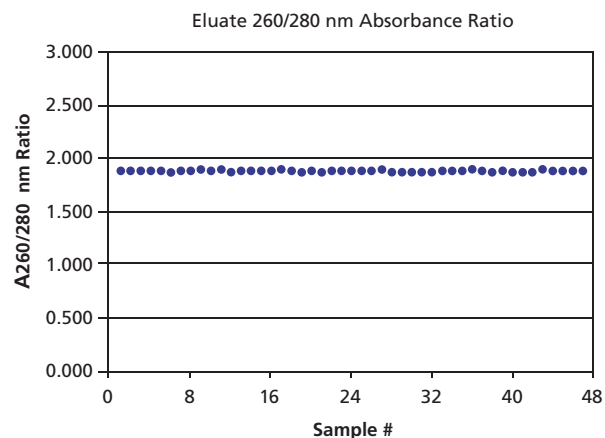


Figure 2. DNA purity from 150 μl of whole blood using the X-Tractor Gene automated DNA extraction platform with optimized X-Tractor Pack liquid reagents.

Ordering Information

Cat. No.	Product Description	Reactions
XTR1	X-Tractor Gene (Liquid Sample Reagent Pack)	480
XTR2	X-Tractor Gene (Solid Sample Reagent Pack)	480
XTRS	X-Tractor Gene (Solid & Liquid Sample Reagent Pack)	480

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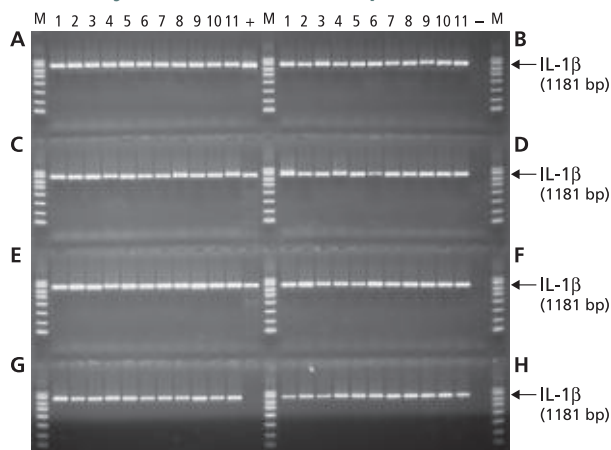
Automated Genomic DNA Extraction Extract-N-Amp™ PCR Kits

The Extract-N-Amp™ PCR Kits are a high-throughput system for the rapid extraction and subsequent amplification of genomic DNA from mouse-tail clippings, other animal tissues, plant leaves, and blood. This novel extraction treatment releases genomic DNA from tissues in minutes, and DNA is ready for direct use in PCR applications without further cleanup. Automated methods have been developed and validated for use with the Biomek FX system (Beckman Coulter), Freedom EVO (Tecan), and Sciclone ALH 3000 (Caliper Life Sciences). These methods provide walk-away automation from extraction through PCR reaction setup.

Features and Benefits

- Walk-away automation
 - Validated methods are available for download
- Rapid Protocol
 - Extraction procedure eliminates the need for any type of purification including filtration, organic extraction, centrifugation, or alcohol precipitation
- Minimal sample preparation
 - Up-front sample preparation such as homogenization, mechanical disruption, freezing, or overnight enzymatic digestion are not required
- Convenient
 - Kits are packaged with an optimized PCR reaction mix

PCR Analysis of Mouse Tail Samples



DNA was extracted from 88 samples of mouse tails (0.3-0.4 cm) using the automated Extract-N-Amp™ Tissue PCR procedure on the Biomek FX. Amplification of 1181 bp fragment of the IL-1 β gene followed using 4 μ l of extracted template or 4 μ l of human genomic DNA controls in a 20 μ l PCR reaction incorporating the 2X PCR Ready Mix. 6 μ l of each reaction was analyzed on a 1% Agarose gel.

Automation Methods and Protocols are available for download at sigma.com/automation

Kit	Sample Types	Throughput for 96 Sample
Extract-N-Amp Blood	Whole blood	13 minutes (Biomek FX)
Extract-N-Amp Tissue	Mouse tails, animal tissues including liver, kidney, pancreas	35 minutes (Biomek FX)
Extract-N-Amp Plant	Corn, soybean, tobacco, tomato	20 minutes (Biomek FX)

Ordering Information

Cat. No.	Product Description	Extractions	Amplifications
XNAB2R	Extract-N-Amp Blood PCR	1000	1000
XNABR	REExtract-N-Amp Blood PCR	1000	1000
XNAT2R	Extract-N-Amp Tissue PCR	1000	1000
XNATR	REExtract-N-Amp Tissue PCR	1000	1000
XNAR	Extract-N-Amp Plant PCR Kit	1000	1000
XNAPR	REExtract-N-Amp Plant PCR	1000	1000