

High Quality DNA Extraction Using Corbett's X-tractor Gene™ & ABgene® Cluster Tube Racks

ABgene® have joined forces with Corbett Robotics to provide a high quality solution for automated DNA extraction. Corbett recently announced the launch of the X-tractor Gene™ DNA Extraction Robot, an open platform system designed to extract DNA or RNA from 8 or 96 samples simultaneously. For collection and storage of the pure nucleic acids, Corbett recommend the use of ABgene® Cluster Tube Racks, available in a range of formats and with a choice of capping solutions.

INTRODUCTION

The X-tractor Gene™ purifies up to 96 samples in approximately one hour. DNA and RNA can be purified from sample types including whole blood, buffy coat, urine, buccal swabs, PCR clean-up, cultured cells, mouse tails and nasal aspirates. At the end of the process, the pure DNA is located in individual ABgene® tubes, ideal for short- or long-term storage or for immediate use in a number of applications.

The system utilises column technology to capture the nucleic acids and a vacuum to dry and elute the samples. It is compatible with a range of commercial kits and can also be used with Corbett CorProtocols™, providing the convenience of automation without the restrictions that often accompany it.

SAMPLE PURITY

When used in conjunction with high quality extraction chemistries, the X-tractor Gene™

Melinda Wenner, ABgene®,
Bruce Harrison, Corbett Robotics



boasts a reproducible A260/A280 purity ratio of at least 1.8. Eluted nucleic acids can be directly used in downstream applications including PCR, sequencing, fragment analysis and real-time PCR.

ABgene® cluster tubes and racks are moulded in an ISO Class 8 cleanroom facility and are certified free of DNase, RNase and human genomic DNA to ensure that samples maintain their purity throughout the collection and storage process.

SOFTWARE

The X-tractor Gene™ boasts advanced software with an interface designed for ease-of-use. Its Wizard guides users through the preparation and extraction process to minimise user error and intervention, thus also minimising potential for external contamination during the procedure. The software calculates the reagent and tip volumes required for each run. A template may be created from the initial run reducing set-up time for subsequent extractions.

The software has also been designed for compatibility with Corbett's CAS-1200 Precision Liquid Handling System and the Rotor-Gene 3000 Real-Time DNA Amplification System. The three instruments constitute the Integrated Gene System which automates and streamlines nucleic acid extraction, sample preparation, and real-time DNA amplification.

SAMPLE STORAGE

After extraction is complete, pure samples are directly eluted into ABgene® tubes. The racked tubes are available in plain, grid referenced or 2DCYPHER™ formats to accommodate different user requirements. Grid referenced tubes feature alpha-numeric grid referencing (e.g. A1, B1, etc) on each tube base corresponding to the tube's position in the 96-well grid; 2DCYPHER™ racks feature 2D bar-coding for a complete

sample management solution (see '2DCYPHER™ Features').

ABgene® also offer a choice of sealing methods for cluster tubes:

- Storage Plate Cap Strips & Storage Plate Caps – Ideal for short-term storage of nucleic acids
- MULTISIP™ Split Septum Plugs – Patented design providing 100% sealing and re-sealing, ideal for re-access up to 200 times with automated pipetting equipment. Can be applied using the MULTISIP™ Cap-It (AB-1227) or MULTISIP™ Applicator (AB-1173)
- Twist-Lock Tube Racks† – Ideal for sample archiving, the patent-pending Twist-Lock system provides 100% sealing even in vapour phase liquid nitrogen environments. Two application tools are available to facilitate cap and tube manipulation. Caps are moulded from an inert material and are available in a range of colours for easy sample identification.

For further information about the Corbett X-tractor Gene™, please visit www.corbettrobotics.com. For more details about ABgene® cluster rack options, please contact ABgene® directly or visit our website www.abgene.com.

2DCYPHER™ FEATURES

- Tubes have encapsulated 2D codes for maximum protection against damage by abrasion or chemical solvents (including DMSO)
- Over 3.6 quadrillion unique codes available, ensuring an unlimited supply without duplication
- Tubes feature human-readable alphanumeric codes around the matrix, providing the ability to reference the tubes without scanning
- A range of reading instruments are available for different throughput requirements



CAT. NO.	DESCRIPTION	QUANTITY
AB-1314‡	0.5ml 2DCYPHER™ Twist-Lock Tube Racks (without caps)	10 racks
AB-1316‡	0.5ml Grid-Referenced Twist-Lock Tube Racks (without caps)	10 racks
AB-1250*	Twist-Lock Caps	960 caps
AB-1317	Twist-Lock Caps, assorted colours	4 x 240 caps
AB-1312†	Twist-Lock Cap-It	1 unit
AB-1255	Twist-Lock Tool	1 unit
AB-1186	0.65ml 2DCYPHER™ Cluster Racks	10 racks
AB-1259	0.65ml Grid-Referenced Cluster Racks	10 racks
AB-1256	0.65ml Micro-Tube Cluster Racks	10 racks
AB-1174	Tray of 96 MULTISIP™ Septum Plugs	10 trays
AB-1173	MULTISIP™ Applicator	1 unit
AB-1227	MULTISIP™ Cap-It	1 unit
AB-0981	Storage Plate Cap Strips	120 strips of 8
AB-1179	Individual Storage Plate Caps	960 caps

† Twist-Lock Cap-It is available free of charge when ordering Twist-Lock racks: please mention AB-1312 on the order.

‡ To ensure correct tube height, a custom version of the Elution Plate Riser Block is required for use with ABgene® 0.5ml Twist-Lock Tube Racks. Please contact Corbett for more details.

For further information, please visit www.abgene.com.