

Ready, Set, Prep

Automated pipetting made easy—new epMotion 5073 family members for perfect PCR set-up and nucleic acids purification or general liquid handling



Say goodbye to hours of pipetting—and concentrate on your scientific work! The new epMotion® gives you the time.

The Eppendorf epMotion automated pipetting system family is extended by two new members; the epMotion P5073 and epMotion M5073. While both are tailored for specific preparative applications, they both are also open platforms that simplify all routine pipetting tasks in your lab. Whether it is PCR set-up or preparation of nucleic acids purification or general liquid handling, the automation yields reliable and reproducible results with more precision and safety than you have ever experienced with manual pipetting.

Learn how simple it is to automate. The well-known and easy to use epMotion lends itself to most laboratory environments. The epBlue software can be learned just in one morning and you will be up and running protocols that same afternoon. And the new software assistants for PCR set-up or nucleic acids purification are so intuitive that any lab member can start after less than 30 minutes familiarization.

The epMotion systems cover a pipetting range of 1 to 1,000 μL . The high accuracy of Eppendorf pipetting technology enables usage of smaller reaction volumes and thus helps to save significant reagent costs.

A wide range of accessories and consumables are available fitting to all of your application needs. The open automation platform gives highest flexibility, supporting tubes ranging from 0.2 mL PCR tubes to 50 mL conical tubes, plates range from 6 to 96 or even 384 wells, sterile, filter and non-filter high-precision pipette tips and several adapters. And there is no »teaching« of labware required—more than 1,200 labware data files are available as free download.

The robust and compact epMotion P5073 and M5073 with its 6 \times SBS position design of 65 cm \times 61 cm fits even on the smallest available lab bench.

epMotion® P5073c



The epMotion P5073—2 systems in one.

First, a tailored workstation for automated PCR set-up in 96 or 384 plate format. The new EasyCon control panel and PCR assistant software fulfills the highest expectations for ease of use, guiding the user stepwise through the process.

Second, a flexible system for automation of labor intensive and complex pipetting tasks with the epBlue software, which addresses diverse liquid handling routines in today's labs. The epMotion P5073 is configured with all accessories and tools required for PCR set-up.

Due to its excellent accuracy, the epMotion P5073 sets the standard for automated pipetting and real-time PCR set-up.

- 1 **CleanCap** with UV lamp for decontamination and HEPA filter for clean air inside
- 2 **Automatic exchange** of 2 pipetting tools
- 3 **Optical sensor*** Checks worktable loading for tips (type and number), labware type, and even liquid volumes in vessels
- 4 **Safety door** Closed housing, operation is paused when the door is opened
- 5 **Six SBS/ANSI** deck positions, 1 positions can be equipped with optional Thermo module for heating and cooling (0–110°C)
- 6 **PCR set-up accessories included:** Thermoblock PCR 96, Rack for 24 Eppendorf Safe-Lock tubes and 2 pipetting tools
- 7 **EasyCon panel** for touch or mouse control with new user guided software assistants for easy application control and USB data transfer

*U.S. Pat. 6,819,437

epMotion® M5073



epMotion M5073 – nucleic acid preparation and flexibility for more.

Use dedicated MagSep reagent kits with the epMotion M5073 for unattended DNA or RNA preparations from 1 to 24 samples from various sources. The EasyCon control panel and Prep assistant software guide step by step through the easy and fast automation process.

The new reuse tips feature and epT.I.P.S. Motion SafeRack tips can help to reduce tip consumption during wash steps.

More flexibility and complexity for various liquid handling tasks can be programmed by the established epBlue software that is installed on the EasyCon as well. Automate tedious, multi-step pipetting tasks in minutes, like plate reformatting, serial dilutions, sample transfer or normalizations, pooling, hit-picking, assay set-up or cell handling. The epMotion M5073 is delivered with all accessories and tools required for nucleic acid preparation.

- 1 **Automatic exchange** of 2 pipetting tools
- 2 **Optical sensor*** Checks worktable loading for tips (type and number), labware type, and even liquid volumes in vessels
- 3 **Separate Liquid Waste Tub**—for convenient cleaning and maintenance with separate liquid and solid waste
- 4 **Nucleic acid purification accessories included:** Rack 24 Eppendorf Safe-Lock tubes, PrepRack, Reagentrack for MagSep reagents and 2 pipetting tools
- 5 **Dedicated ReagentRack** for a set of MagSep reagents for 1 to 24 samples. Just open bottles and ready, set, prep
- 6 **EasyCon panel** for touch or mouse control with new user guided software assistants for easy application control and USB data transfer

Unique 3D-MagSep Technology

Combination of magnetic finger module and TMX facilitates magnetic separation, mixing and temperature control in one location



*U.S. Pat. 6,819,437

Eppendorf® MagSep reagent kits for automated nucleic acid purification of 1 to 24 samples – free-up your time for scientific work

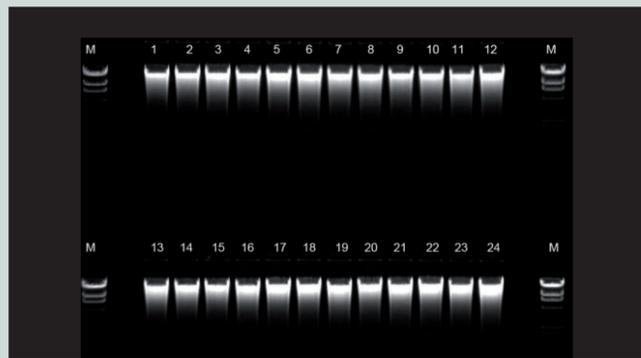
Whether your sample is tissue, cells, bacteria, blood or cell-free body fluids, the MagSep Tissue gDNA kit, MagSep Blood gDNA kit or MagSep Viral DNA/RNA kit is your smart solution for automated nucleic acid purification.

The kits are designed for rapid automated small-scale preparation of highly pure nucleic acids based on robust magnetic bead separation using the epMotion M5073. All reagents, like Proteinase K and other buffers, and tubes that are needed for extraction and elution for 96 samples are provided.

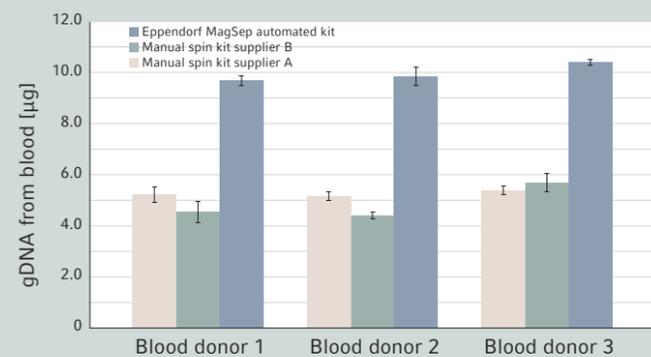
The ready to use reagents come in special trays for 1 to 24 preparations. Just open the vessels, place the tray on the epMotion worktable and the M5073 will do all the pipetting. If less than 24 samples are run, the tray can be stored for later use.

Benefit from minimal hands-on time with ready to use reagents, special epMotion reagent tray and easy software assistants. Get superior yield and purity versus manual or other automation methods by optimized chemistry and 3D-MagSep technology with the epMotion M5073 (typical ratio A260/280 is 1.8 to 1.9) which guarantees reliable and reproducible results in various downstream applications, like genotyping, sequencing, real-time PCR other enzymatic or chemical reactions.

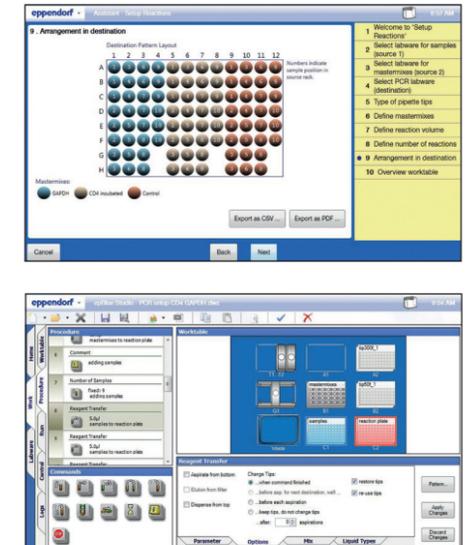
- > Automatic recognition of kit type and available sample reagents
- > Variable use of 1 to 24 sample reagents per tray and intermediate storage possible
- > 25 to 200 μ L variable choice of elution volume (concentration vs. yield)
- > Eppendorf DNA LoBind Safe-Lock tubes included for maximum DNA recovery



Gel analysis of 24 mouse tail samples purified with MagSep gDNA tissue kit; typical yield 10 μ g high molecular weight DNA out of 10 mg tissue; 7.5 μ L of 75 μ L loaded on gel.



Typical yield of 9 μ g gDNA from 200 μ L of blood purified via MagSep gDNA blood kit versus manual process of purification (n=3).



Ease of use and flexibility

The Eppendorf 5073 EasyCon control panel is optimized for easy and comfortable access to liquid handling automation. It has a large color display and is operated by touch or mouse control. The key feature of the EasyCon control panel however is its flexibility with pre-installed software assistants for easy and fast application runs and the epBlue studio software for programming more complex liquid handling tasks. The epBlue studio can be learned just in one morning and you will be up and running protocols that same afternoon. And the new software assistants for PCR set-up or nucleic acids purification are so intuitive that any lab member can start after less than 30 minutes familiarization.

- > Touch screen or mouse control
- > 3x Prep assistants
- > 4x PCR assistants
- > epBlue studio software
- > 4 x USB 2.0 ports for data transfer
- > Data backup
- > CSV and XML file exchange
- > No extra power supply needed

The 4 PCR assistants are designed to streamline and automate the whole PCR set-up workflow:

- > Compose Mastermix: Create one or more PCR mastermixes from pre-mixes or single components (buffer, polymerase, dNTPs, primers, probes, etc.). The software automatically calculates the required volume of each component.
- > Normalize Concentrations: Dilute your DNA/RNA samples to obtain an equal concentration in all samples. You can either enter the concentrations data manually or import them from a file.
- > Create Dilution Series: Serially dilute one or more DNA/RNA standards to create a calibration curve for quantitative PCR.
- > Setup Reactions: Create complete reaction set-up by combining samples with one or more mastermixes. Optionally, you can create replicate reactions as well.

Ready, Set, Prep—three Prep assistants provide a step-by-step guided workflow of automated nucleic acid purification with the MagSep reagent kits on the epMotion M5073. In short, unscrew caps from reagent tray, select number of samples, select labware for purified DNA/RNA, choose elution volume between 25 to 200 μ L and start run.

Technical Specifications

Description	epMotion M5073	epMotion M5073c	epMotion P5073	epMotion P5073c
Dimensions (WxDxH)	65 cm × 61 cm × 67 cm	65 cm × 61 cm × 77 cm	65 cm × 61 cm × 67 cm	65 cm × 61 cm × 77 cm
Weight	57 kg	62 kg	50 kg	55 kg
Power supply	100–240 V ±10%/50–60 Hz ±5%			
Max power input	600 W			
EasyCon	Capacitive touch LCD display, color, 1024 × 600 pixel			
SBS/ANSI Positions	6			
HEPA filter	70–80 m ³ /h; class E10		70–80 m ³ /h; class E10	
Opt. gripper carrying capacity	1200 g			
UV light	254 nm (UV-C)		254 nm (UV-C)	
UV lamp power 1 m distance	39 μW/cm ²		39 μW/cm ²	
Thermomixer® MagSep module	Mix time 5 s–120 min 300 rpm–2,000 rpm 4°C–95°C	Mix time 5 s–120 min 300 rpm–2,000 rpm 4°C–95°C		
Optional Thermomodule			0°C–110°C	0°C–110°C
Free jet, air cushion pipetting	1–1,000 μL	1–1,000 μL	1–300 μL (1,000 μL)	1–300 μL (1,000 μL)

Ordering information

Description	Order no.
epMotion® P5073, for automated PCR set-up, 100–240 V/50–60 Hz, with EasyCon-control panel, Software epBlue and PCR-Assistants, TS 50, TS 300, Thermoblock and Rack 24 Eppendorf Safe-Lock	5073 000.000
epMotion® P5073c, for automated PCR set-up, 100–240 V/50–60 Hz, with CleanCap, EasyCon-control panel, Software epBlue and PCR-Assistants, TS 50, TS 300, Thermoblock and Rack 24 Eppendorf Safe-Lock	5073 000.302
epMotion® M5073, for automated nucleic acid preparation of 1–24 samples with Eppendorf MagSep Kits, 100–240 V/50–60 Hz, with EasyCon-Control-Panel, Software epBlue and Prep-Assistants, TS 50, TS 1000, PrepRack, ReagentRack, Rack 24 Eppendorf Safe-Lock	5073 000.205
epMotion® M5073c, for automated nucleic acid preparation of 1–24 samples with Eppendorf MagSep Kits, 100–240 V/50–60 Hz, with CleanCap, EasyCon-Control-Panel, Software epBlue and Prep-Assistants, TS 50, TS 1000, PrepRack, ReagentRack, Rack 24 Eppendorf Safe-Lock	5073 000.400
MagSep Tissue gDNA Reagent Kit for DNA purification from 4 × 24 tissue samples	0030 450.000
MagSep Blood gDNA Reagent Kit for DNA purification from 4 × 24 blood samples	0030 451.007
MagSep Viral DNA/RNA Reagent Kit for viral DNA/RNA purification of 4 × 24 samples	0030 452.003

For related service products, new epT.I.P.S. Motion SafeRacks, other consumables and accessories please visit www.epMotion.com

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