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High-quality gDNA Purification on the epMotion[®] 5075t* Liquid Handler

Reproducible and high throughput total DNA extraction



The Zymo Research Quick-DNA[™] Magbead Plus Kit can be easily automated on the epMotion[®] 5075 liquid handler with simple standardized methods to yield ultra pure genomic DNA for sensitive downstream applications such as qPCR, DNA sequencing, arrays and methylation studies.

Product features of the epMotion®

- > 14 SLAS/ANSI plus small position for special reagent reservoir rack (3 reservoirs)
- > Maximum pipetting accuracy from 0.2 µL to 1 mL
- Gripper tool for transport of labware and stacking of up to 5 plates on deck
- > Automatic tool exchange can be easily programmed in the epBlue software
- > Integrated Eppendorf ThermoMixer[®] and ^{2D}Mix-Control improves DNA yield and downstream application results
- > Peltier element for heating and cooling of samples and/or reagents
- > Integrated LEDs for visual feedback of system status like idle, run in progress or run finished

Your advantages

- > Reproducible results: Simple standardized procedure to extract high-quality DNA from any sample type and eliminate well-to-well variation in DNA recovery
- > Walkaway configuration: Labour-intensive steps are fully automated to your reduce hands-on and processing time
- > High-throughput: Automated processing of up to 96 samples in less than 2.5 hours
- > Highly flexible: Configurable worktable to support your daily sample numbers
- > Enhanced safety: Fully autoclavable dispensing tools, optional UV lamp and air filter for user and sample safety

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Workflow Overview



Figure 1: Automated workflow for the Zymo Research Quick-DNA[™] Magbead Plus Kit on the epMotion[®] 5075t. Steps shown in brown can be automated on the epMotion.

Protocol Overview

epMotion 5075t





Figure 2: Protocol overview for processing 96 samples using the Zymo Research Quick-DNA[™] Magbead Plus Kit on the epMotion[®] 5075t.

References

[1] Zymo Research, Quick-DNA[™] Magbead Plus Kit, Instruction Manual Ver 2.0.1.

[2] Data provided by Ankara University, Turkey

*Developed on a predecessor model, but thanks to the migration feature, this method can easily be transferred to the newest generation of <code>epMotion®</code>

Contact your sales specialist for more information:



Figure 3: Worktable layout for Method 1

Application Data



Figure 4: High quality DNA extracted using the Quick-DNA[™] Magbead Plus Kit from different sample types and analyzed using the Agilent 2200 TapeStation[®].¹

100 bp Fish sample Fish sample ladder 1 2

Figure 5: Distinct bands of PCR amplicons at approximately 700bp. Results after amplification of extracted DNA from the 2 fish tissue sample replicates using QuickDNA[™] Magbead Plus Kit.

Name	Fish Sample 1	Fish Sample 2
Concentration (ng/µL)	52.8	61.1
A260/A280	1.813	1.812
A260/A230	1.441	1.784

Table 1: DNA yield and quality was assessed by the Thermo Scientific Nanodrop Spectrophotometer. DNA extracted from 2 fish tissue sample replicates using the Zymo Research QuickDNA[™] Magbead Plus Kit automated on the epMotion 5075t.

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