



EzMate 401

Automated Pipetting System

Working Smart

Arise
BIOTECH



Your Dependable PCR/qPCR Setup Partner

Arise Biotech's EzMate™ 401 is an automated, high-precision pipetting system specifically designed for low-volume PCR/qPCR sample preparation. Lab technicians understand the many challenges associated with setting up PCR and qPCR reactions. Small volumes of reagents need to be dispensed accurately and consistently for acceptable PCR results, and the manual liquid handling process is tedious and time consuming, with many chances for mistakes.

The EzMate™ 401 was designed as a simple instrument to replace the manual process of PCR/qPCR sample prep. Accuracy, precision and consistency are guaranteed, and reagents will not be wasted on mistakes. Unlike complex, multi-purpose robotic systems, our instrument was designed for the researcher without prior robotics experience. Intuitive set up and programming will have your lab saving time and money almost immediately. Choosing EzMate™ 401 is a choice of "Working Smart".

Easy and Convenient to Use

- PC Software: EzStarter™ can be mastered in one hour. No trained technician required.
- Built-in PCR/qPCR setup protocols can be quickly modified and transferred via USB memory stick.
- 1 and 8-channel, 50µl or 200µl, Automated Pipetting Modules (APMs) can be exchanged without tools.
- 4 interchangeable standard microtiter plate/tip rack adapters and 2 interchangeable reagent vessel adapters.
- Other applications: Sequencing setup, HLA typing and SNP detection, etc.

Easy to Afford

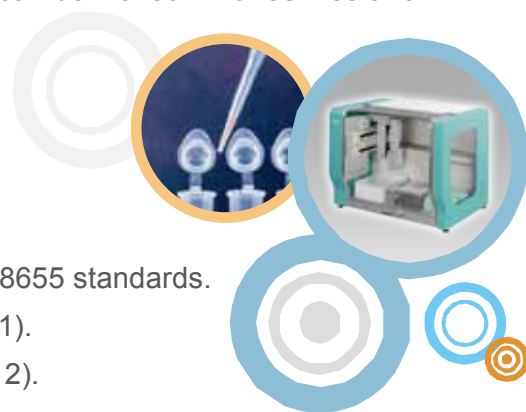
- The most affordable Automated Pipetting System available.
- EzTip™ robotic tips are compatible with Beckman's® Biomek® 3000 system.
- The CoolBlock™ adapters keep sensitive reagents/samples at 7°C for more than 60 minutes.
- Save reagent costs by reducing human errors and using more dense plates.

Easy to Service

- The Automated Pipetting Module (APM) is simple to remove and can be mailed-in for service and calibration.
- PC software is upgradable via the internet.
- The entire system is compact and light-weighted.

Accurate and Precise

- Each Automated Pipetting Module (APM) is calibrated using ISO-8655 standards.
- Excellent results for qPCR standard curve and replicates (Figure 1).
- Better Precision of pipetting results than manual pipetting (Figure 2).



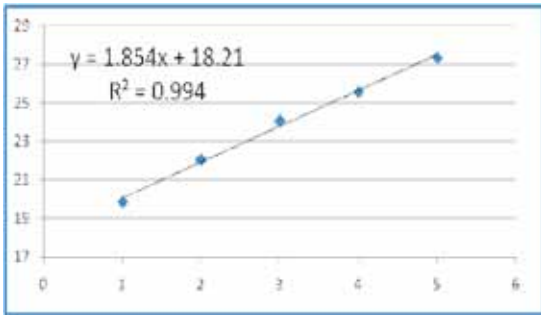
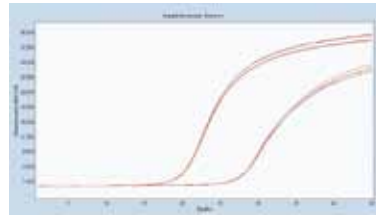
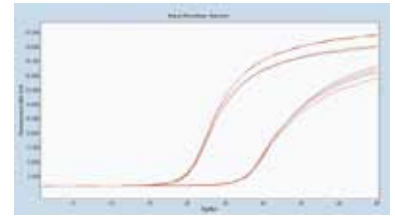


Figure 1. Excellent Serial Dilution Results.

7µl NIH3T3 Cell cDNA sample is diluted in 21µl water at 1:4 ratio for 4 times. Roche® LightCycler® 480 real-time PCR thermal cycler and Finnzyme DyNAmo® Flash SYBR® Green qPCR kit (F-415L) were used.



EzMate™ 401
C_T std dev 0.135



Hand pipetting
C_T std dev 0.145

Figure 2. Better Precision Results than Manual Pipetting

Target: Human GAPDH (top curve) was amplified in replicates of 4. 18µl (master-mix) and 2µl (cDNA) were pipetting into 20µl reaction volume. Roche® LightCycler® 480 real-time PCR thermal cycler and Invitrogen™ Platinum® Taq DNA Polymerase were used.

Automated Pipetting Module (APM)

- Easy to exchange
- 1/8 channel, 50µl/200µl models
- Automatic channel and volume identification

Functional Safety Housing

- Safety door detection for emergency stop
- Light-weighted Acrylic material

Compact Design

- Small footprint
- Extremely light-weighted

Disposable Used Tip Tray

- Capacity > 300tips

2x Reagent Area

- 2x4 2ml or 1.5ml micro tubes
- 6x2ml free stand tubes & 1x5ml bottle
- CoolBlock™ available for various reagent vessels

15.6" Notebook Computer with EzStarter™ Software

- PCR/qPCR-oriented software
- Pre-run simulation
- Operating System: Windows® 7

4-position SBS Worktable

- 2/1 tip racks
- 2/3 leviated adaptor for PCR plates/strips
- CoolBlock™ available for 96/384-well PCR plates

Technical Specification

Worktable Capacity: 2 or 3 x 96 / 384 SBS PCR plates

2 or 1 x 96 tip rack (50/200µl)

Reagent Area 1: 8 x 1.5/2 ml microcentrifuge tube,

Reagent Area 2: 6 x 2 ml storage tube (free standing) and 1 x 5 ml bottle

Function : Liquid (Sample/Reagent) Transfer (LT)

Multiple Dispense (MD)

Serial Dilution (SD)

Hold (Pause)

Mixing (MIX)

Loop

Automated Pipetting Module: Interchangeable 1/8-channel, Maximum volume 50µl/200µl

Connection: RS-232, USB2.0

Power Supply: 100~240V, 50/60 Hz, 100W

Size (W x D x H): 590 x 440 x 460 mm

Weight (N.W.): 25 Kg

Performance of Automated Pipetting Module (APM)

| 1/8 Channel- Volume: 50µl | | |
|---------------------------|--------|--------|
| | 1µl | 50µl |
| Accuracy (Rel.) | ± 7% | ± 1% |
| Precision (Rel. CV) | ≤ 7.5% | ≤ 0.4% |

| 1/8 Channel-Volume: 200µl | | |
|---------------------------|------|---------|
| | 10µl | 200µl |
| Accuracy (Rel.) | ± 3% | ± 0.8% |
| Precision (Rel. CV) | ≤ 1% | ≤ 0.15% |

Note: According to ISO-8655 standards (Gravimetric method), APM is calibrated in temperature (21~25°C, ±0.5°C) and humidity (60~90%) controlled environment. Twice-distilled water, robotic tips and microbalance were used.

Ordering Information

| Catalog No. | Description |
|---|--|
| EzMate™ 401 | |
| AREZ 401-10000 | 4-plate Automated Pipetting System with 1x 15.6" Notebook Computer and EzStarter™ control software |
| Interchangeable Automated Pipetting Module | |
| 275-ezar01-00 | 1-channel, 50µl Pipetting Module |
| 275-ezar02-00 | 8-channel, 50µl Pipetting Module |
| 275-ezar03-00 | 1-channel, 200µl Pipetting Module |
| 275-ezar04-00 | 8-channel, 200µl Pipetting Module |
| Robotic Tips | |
| 275-ezar10-00 | EzTip™ 50µl, non-sterile, 96 tips/rack; 10 racks/pack |
| 275-ezar11-00 | EzTip™ 200µl, non-sterile, 96 tips/rack; 10 racks/pack |
| 275-ezar14-00 | EzTip™ 50µl, sterile, 96 tips/rack; 10 racks/pack |
| 275-ezar15-00 | EzTip™ 200µl, sterile, 96 tips/rack; 10 racks/pack |
| Accessories | |
| 275-ezar21-00 | 96 tips rack adapter |
| 275-ezar22-00 | Leviated 96-well PCR plate adapter |
| 275-ezar23-00 | Leviated 384-well PCR plate adapter |
| 275-ezar26-00 | 4 x 2 1.5ml tubes adapter |
| 275-ezar27-00 | 3 x 2 2ml storage tubes & 1 x 5ml bottle adapter |
| 275-ezar30-00 | CoolBlock™ 96 adapter for 96-well PCR plates |
| 275-ezar31-00 | CoolBlock™ 384 adapter for 384-well PCR plates |
| 275-ezar34-00 | CoolBlock™ R10 adapter for 4 x 2 1.5ml tubes |
| 275-ezar35-00 | CoolBlock™ R20 adapter for 3 x 2 2 ml storage tubes and 1 x 5ml bottle |
| 275-ezar40-00 | 20-well 1.5ml tubes adapter |
| 275-ezar42-00 | Disposable Used Tip Tray x 10 sets |



CoolBlock™ 96



20x1.5ml tubes adapter



CoolBlock™ 384



1-channel APM



CoolBlock™ R10



8-channel APM



CoolBlock™ R20



Disposable Used Tip Tray Set

Trademarks: Beckman®, Biomek® 3000 (Beckman Coulter Inc.); Roche®, LightCycle® 480 (Roche Group); DyNAmo™ (Finzyme Oy); SYBR® (Molecular Probes Inc.); Invitrogen™ Platinum® (Invitrogen Corp.)

Note: Specifications are subjected to change without notice.



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AUSTRALIAN DISTRIBUTORS:

Fisher Biotec Australia - www.fisherbiotec.com

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