

Medino® Universal Multiplex qPCR Master Mix (Probe Based)

Cat. no. LM602002

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Product Information

Cat. No.	Product name	Pack size
LM602002	Medino® Universal Multiplex qPCR Master Mix (Probe Based)	1 mL
		5 × 1 mL
		5 mL
		20 mL
		100 × 1 mL
		100 mL

Please state the required pack size when ordering.

Hot start	Built-in hot start
Detection method	Primer-probe detection
PCR method	qPCR
Polymerase	Taq DNA polymerase
Type of sample	DNA

Kit Contents

Contents	1 mL	5 × 1 mL	5 mL	20 mL	100 × 1 mL	100 mL
2× Universal Multiplex qPCR Master Mix	1 mL	5 × 1 mL	5 mL	20 mL	100 × 1 mL	100 mL

Storage

Store at –25 °C to –15 °C. Valid for 2 years.

Introduction

Medino® Universal Multiplex qPCR Master Mix (Probe Based) is a 2× pre-mixed solution for real-time quantitative PCR amplification, characterized by high sensitivity and specificity. The mix is blue in colour and includes a visual sample-addition indicator, and supports up to four fluorescent quantitative PCR targets in a single reaction well.

The product contains a genetically modified, antibody-mediated hot-start Taq DNA polymerase, greatly improving amplification sensitivity and specificity. The multi-target reaction buffer has been deeply optimised to improve amplification efficiency and promote effective amplification of low-concentration templates. The product can be used for genotyping and multiplex quantitative analysis.

Features

1. High sensitivity and specificity, with a blue-coloured formulation and built-in visual sample-addition indicator.
2. 2× Mix design supports up to four fluorescent qPCR targets in a single reaction well.
3. Genetically modified, antibody-mediated hot-start Taq DNA polymerase for improved amplification sensitivity and specificity.
4. Deeply optimised multi-target reaction buffer improves amplification efficiency, including for low-concentration templates.
5. Suitable for genotyping and multiplex quantitative analysis.

Notes Please be sure to read this precaution before using the kit.

1. This product is for scientific research use only. Not for use in diagnostic or clinical procedures.
2. For your safety and health, please wear a laboratory coat and disposable gloves while handling this product.

Protocol

A. Reaction Set-up (25 µL system)

Component	Volume (µL)	Final concentration
2× Universal Multiplex qPCR Master Mix	12.5	1×
Primer mix (10 µmol/L)	X	0.1–0.5 µmol/L
Probe mix (10 µmol/L)	X	50–250 nmol/L
ROX reference dye	0.4	1×
Template DNA/cDNA	1–10	—
ddH ₂ O	up to 25	—

Mix thoroughly before use, avoiding excessive bubbles from vigorous shaking. This product does not contain ROX reference dye; add it only if required for signal correction on instruments such as Applied Biosystems platforms. A 25, 30 or 50 µL reaction system is recommended to ensure effective, repeatable target amplification.

B. Compatible Instruments

Applied Biosystems: 5700, 7000, 7300, 7700, 7900HT Fast, StepOne™, StepOnePlus™, 7500, 7500 Fast, ViiA™ 7, QuantStudio™ 3 and 5, QuantStudio™ 6, 7 and 12K Flex.

Bio-Rad: CFX96, CFX384, iCycler iQ, iQ5, MyiQ, MiniOpticon, Opticon, Opticon 2, Chromo4.

Eppendorf: Mastercycler ep realplex, realplex 2s.

Qiagen: Corbett Rotor-Gene Q, Rotor-Gene 3000, Rotor-Gene 6000.

Roche Applied Science: LightCycler 480, LightCycler 2.0, LightCycler 96.

Stratagene: MX3000P™, MX3005P™, MX4000P™.

Thermo Scientific: PikoReal Cyclor.

Others: Cepheid SmartCycler; Illumina Eco qPCR.

C. Recommended Cycling Programme

Step	Temperature	Time	Cycles
Initial denaturation	95 °C	5 min	1
Denaturation	95 °C	15 s	45
Annealing / extension*	60 °C	30 s	

* Annealing/extension temperature and time can be adjusted according to the designed primer T_m value. Required fluorescence-acquisition time varies by instrument, e.g. 20 s (Applied Biosystems 7900HT, 7500 Fast), 31 s (Applied Biosystems 7300), 32 s (Applied Biosystems 7500) — set according to each instrument's minimum time requirement.