

Cat No.	Description	Quantity	Storage
EUQ10	EU 2X Q-PCR Master Mix (no Rox)	1 mL	-20°C
EUQ50	EU 2X Q-PCR Master Mix (no Rox)	5 mL	-20°C

Product Description

EU 2X Q-PCR Master Mix is a ready-to-use reagent with all the essential components for quantitative real-time PCR (qPCR) except primers and templates. It contains EUTaq polymerase in an optimized buffer with dsDNA specific SYBR green fluorescent dye. This master mix allows sensitive, precise amplification, real-time tracking of the amplification process, and simultaneous quantification for targeted DNA molecules.

Features

- High sensitivity and signal intensity
- Low background
- Compatible with reverse transcriptase

Protocol

Thaw the reagents on ice, mix the solutions (do not vortex) and spin down before use. Briefly centrifuge to avoid bubbles within the wells.

	20 µl reaction	Final concentration
EU 2X Q-PCR Mix	10 µl	1X
1 µM primer A	2 µl	100 nM
1 µM primer B	2 µl	100 nM
Template DNA	variable	< 250ng
Nuclease-free water	to 20 µl	

Typical 3-step PCR protocol

	Temperature (°C)	Time	Cycles
Initial Denaturation	96	3 min	1
Denaturation	96	10 sec	30-40
Annealing	52 – 65 *	30 sec	
Extension	72	30 sec	
Optional melting step			

* : Recommended annealing temperature 56°C - 60°C as the starting point. For best result, annealing temperature should be +2 of the lower T_m primer. Primer T_m calculation for EUTaq polymerase can be performed at our website: <http://eu-bio.com/tm.php>

Instrument compatibility

This product is compatible for the use with any block-based qPCR cycler not requiring a passive reference dye.

- BioRad system: – CFX96 – Chromo 4™ Real-Time Detector – DNA Engine Opticon™ – DNA Engine Opticon™ 2 – CFX384 Touch
- Cepheid system: – Smart Cycler®
- Eppendorf system: – Mastercycler® ep realplex
- Roche system: – Roche LightCycler® 480 – Roche LightCycler® Nano
- QIAGEN system: – Rotor-Gene™ Q
- Illumina system: – Eco™

Shipping and Storage

- EU 2X Q-PCR Master Mix is stable at room temperature for 7 days. Therefore, it is safe to ship it at room temperature. The product should be stored immediately upon receipt at -20°C. Aliquot to avoid multiple freeze-thaw cycles. Protect from light.
- For a day-to-day use, we recommend keeping an aliquot at 4°C. The reagents can be stored at 4 °C for up to 1 month.

Troubleshooting

How to optimize the PCR conditions and prevent false amplification?

1. The annealing temperature should be optimized. Try a temperature gradient and determine the best annealing temperature, which results in the cleanest PCR product.
2. Reduce the extension and annealing time - too long and too many cycles may lead to over-amplification and side-products.
3. Decrease primer concentration or design new primer

Safety

This product does not require a Material Safety Data Sheet because it does neither contain more than 1% of a component classified as dangerous or hazardous nor more than 0.1% of a component classified as carcinogenic.