

# Clara<sup>®</sup> Probe 1-Step Mix



- Super sensitive
- All-in-one mix for DNA & RNA
- Single & multiplex detection

Clara<sup>®</sup> Probe 1-Step Mix offers reliable probe-based qPCR detection of both RNA and DNA target sequences. Provided in a one-tube format, this powerful RT-qPCR mix gives superior target amplification, in single or multiplex assays, even on highly dilute samples. UNG and dUTP formats available for reduced carryover contamination.

## Features

- Concentrated 4x mix, ideal for high-throughput, highly multiplexed assays
- Ultra-sensitive detection of RNA & DNA targets
- Early detection of a wide range of template amounts
- Contains modified UltraScript<sup>®</sup> RTase in a single-tube format
- Advanced RNase inhibitor
- Antibody-mediated hot start technology
- Compatible with all real-time PCR platforms – standard and fast cycling conditions
- UNG/dUTP formulation available

## Applications

- Gene expression analysis
- Genotyping
- Allelic discrimination
- In vitro diagnostic kit development
- Single & multiplex RNA & DNA detection

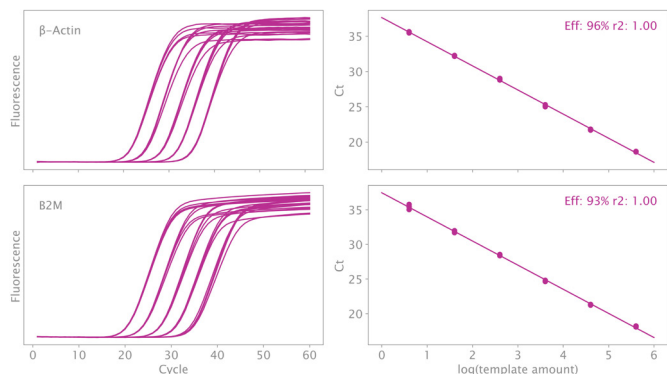


Figure 1. Sensitive detection of mouse RNA in singleplex reactions.

Amplification of common housekeeping genes ( $\beta$ -Actin and  $\beta$ -2-Microglobulin [B2M]) in singleplex setup using Clara<sup>®</sup> Probe 1-Step Mix. Amplification curves are shown in the left panels and efficiency in the right panels. 5 serial dilutions of mouse total RNA template were used, corresponding to 50 ng/ $\mu$ L, 5 ng/ $\mu$ L, 500 pg/ $\mu$ L, 50 pg/ $\mu$ L, and 5 pg/ $\mu$ L. The total reaction volume was 20  $\mu$ L. Cycling conditions were 52 °C 5 min, 95 °C 3 min and 60 cycles of 95 °C 15 s, 60 °C 30 s.

Clara<sup>®</sup> Probe 1-Step Mix offers high sensitivity and reproducible amplification, with optimal efficiency, even at low template concentrations.



PCRBIOSYSTEMS  
simplifying research

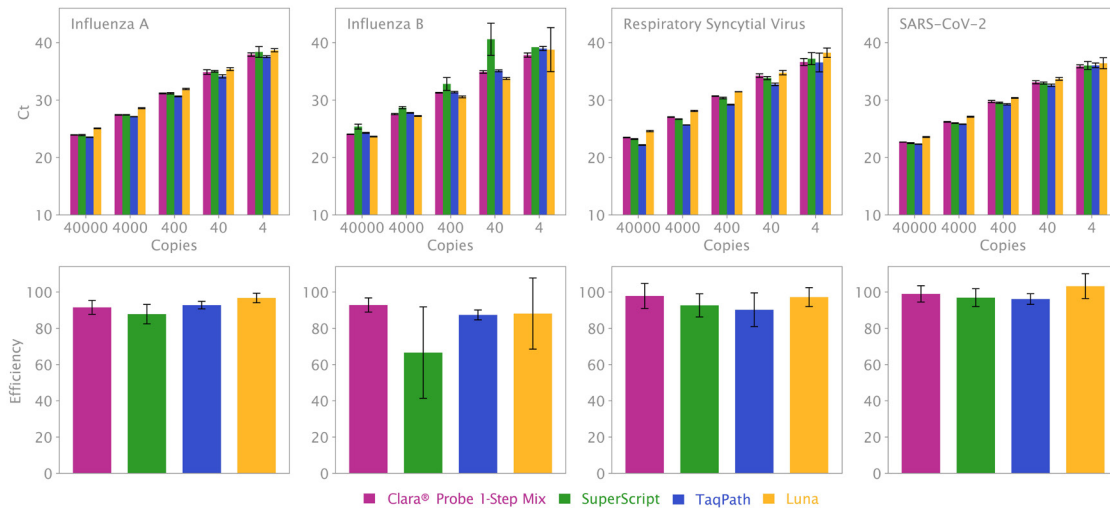


Figure 2. Reliable detection of RNA viruses in a multiplex setup.

Multiplex amplification of common winter viruses (Influenza A, Influenza B, Respiratory Syncytial Virus, and SARS-CoV-2) using Clara® Probe 1-Step Mix (purple bars), Thermo Fisher SuperScript™ III Platinum™ OneStep qRT-PCR Kit (green bars), Thermo Fisher TaqPath™ 1-Step Multiplex Mastermix (blue bars) and NEB Luna® Universal Probe One-Step RT-qPCR Kit (yellow bars). Ct values are shown in the top panels and efficiency in the bottom panels. 5 serial dilutions of RNA template were used, corresponding to 40 000, 4000, 400, 40, and 4 copies of each viral genome. The total reaction volume was 20 µL. Cycle conditions were 52 °C 15 min, 95 °C 3 min and 50 cycles of 95 °C 15 s, 60 °C 30 s. Clara® Probe 1-Step Mix shows high sensitivity and reproducible amplification even at low copy number templates with optimal efficiency in a multiplex setup, in line or better than the major competitors.

## All-in-one qPCR mix

Clara® Probe 1-Step Mix is an all-in-one, 4x mastermix for probe-based 1-step RT-qPCR. Engineered to combine maximum sensitivity with ease-of-use, it contains a uniquely modified version of UltraScript® RTase so the mix can be stored in a single tube. This reduces the amount of pipetting needed for assay setup, minimising the risk of contamination and saving time. Separate uracil N-glycosylase (UNG) and dUTP formats are also available.

## Sensitive, reliable, versatile

Extensive optimisation makes this mix suitable for all nucleic acid target types. We have tested it against common RNA viruses, including SARS-CoV-2, RSV, Influenza A, and B, standard housekeeping genes, such as beta-actin and GAPDH, as well as DNA targets.

## Universal probe compatibility

Clara® Probe 1-Step Mix can be used with all probe chemistries, including TaqMan®, Scorpions® and molecular beacons. Get clear, strong fluorescence no matter what the template.

Catalogue Number		Product Name	Pack Size	Presentation
No UNG	With UNG			
PB25.81-01	-	Clara® Probe 1-Step Mix Lo-ROX (UNG)	200 reactions	1 x 1 mL
PB25.81-03	PB26.81-03		600 reactions	3 x 1 mL
PB25.81-05	-		1000 reactions	5 x 1 mL
PB25.81-50	PB26.81-50		10000 reactions	1 x 50 mL
PB25.82-01	-	Clara® Probe 1-Step Mix Hi-ROX (UNG)	200 reactions	1 x 1 mL
PB25.82-03	PB26.82-03		600 reactions	3 x 1 mL
PB25.82-05	-		1000 reactions	5 x 1 mL
PB25.82-50	PB26.82-50		10000 reactions	1 x 50 mL
PB25.83-01	-	Clara® Probe 1-Step Mix No-ROX (UNG)	200 reactions	1 x 1 mL
PB25.83-03	PB26.83-03		600 reactions	3 x 1 mL
PB25.83-05	-		1000 reactions	5 x 1 mL
PB25.83-50	PB26.83-50		10000 reactions	1 x 50 mL
PB25.84-01	-	Clara® Probe 1-Step Mix Separate-ROX (UNG)	200 reactions	1 x 1 mL
PB25.84-03	PB26.84-03		600 reactions	3 x 1 mL
PB25.84-05	-		1000 reactions	5 x 1 mL