

Air-Dryable Probe 1-Step Mix



- Fast air-drying protocol
- Superior low copy number detection
- Unaffected by drying & reconstitution

Air-Dryable Probe 1-Step Mix is a versatile all-in-one, air-dryable 4x RT-qPCR reagent mix for ultra-sensitive detection of RNA and DNA sequences. Designed for rapid air-drying, the kit enables dried assay formats using a standard laboratory oven, offering a simpler, faster, and cheaper alternative to lyophilisation.

Features

- Unbiased, sensitive detection of both DNA and RNA targets, 4 copies per reaction
- Complete 1-step RT-qPCR mix, single tube format
- Easy reaction setup
- Rapid air-drying protocol, 80-90 min
- Same high performance before & after drying
- Room temperature storage and shipping of dried reactions
- Increased sample volume input

Applications

- Diagnostic probe-based qPCR & RT-qPCR
- DNA & RNA detection
- TaqMan®, Scorpions® and molecular beacon probe qPCR
- Multiplex and singleplex setup

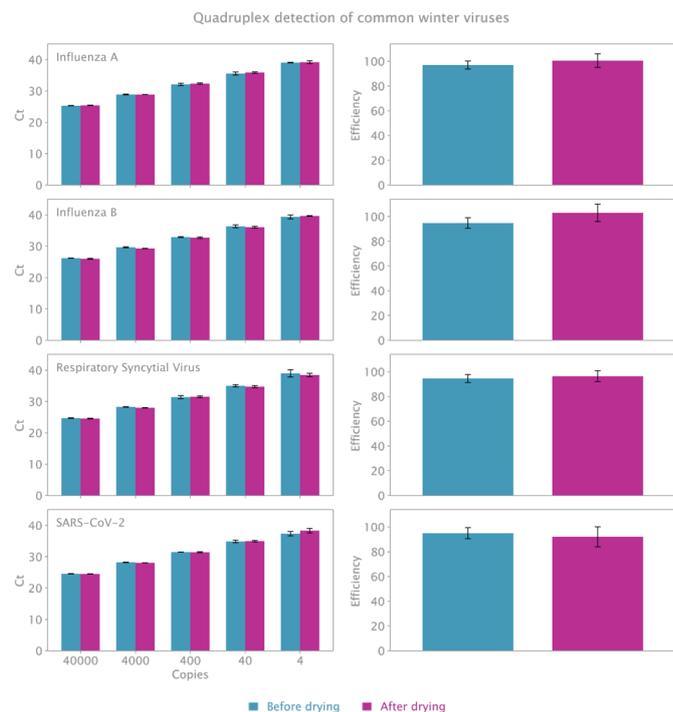


Fig 1. Reliable performance after air-drying in a multiplex setup.

Multiplex amplification of Influenza A, Influenza B, Respiratory Syncytial Virus, and SARS-CoV-2 using Air-Dryable Probe 1-Step Mix before (blue bars) or after drying (purple bars). Ct values are shown in the left panels and efficiency in the right panels. 5 serial dilutions of RNA template were used, corresponding to 40 000, 4 000, 400, 40, and 4 copies of each viral genome. The total reaction volume was 20 μ L. Cycle conditions were 45 $^{\circ}$ C 20 min, 95 $^{\circ}$ C 3 min and 50 cycles of 95 $^{\circ}$ C 15 s, 60 $^{\circ}$ C 30 s.

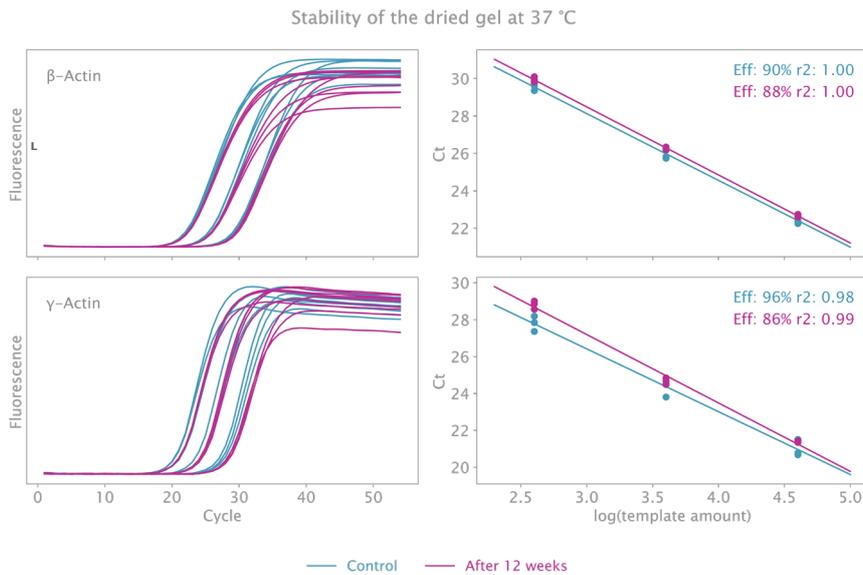


Fig 2. Stability of the dried gel after 12 weeks at 37 °C

Amplification of common house-keeping genes (β -Actin, γ -Actin) in singleplex setup using Air-Dryable Probe 1-Step Mix. The mix was dried and stored at -20 °C (blue curves) or incubated at 37 °C for 12 weeks (purple curves). Amplification curves are shown in the left panels and efficiency in the right panels. 3 serial dilutions of mouse total RNA template were used, corresponding to 5 ng/ μ L, 500 pg/ μ L, and 50 pg/ μ L. The total reaction volume was 20 μ L. Cycle conditions were 45 °C 20 min, 95 °C 3 min and 50 cycles of 95 °C 15 s, 58 °C 30 s.

Air-Dryable Probe 1-Step Mix shows no significant loss of efficiency (less than 10% difference), speed (less than 1 Ct delay) or sensitivity after incubation at 37 °C for 12 weeks.

Complete mix

Air-Dryable Probe 1-Step Mix comprises a glycerol-free 4x qPCR mix with hot start Taq polymerase, dNTPs, MgCl₂ and a blend of excipients for reliable drying without activity loss. A more stable version of UltraScript™ Reverse Transcriptase and our RiboShield™ RNase inhibitor are blended into the mix, providing a convenient single-tube format.

Get all the benefits of dried assays

Fully air-dryable in a standard laboratory oven, this mix brings the robust performance of our liquid format reagents to a dryable form. With unparalleled stability after drying, the novel formulation of Air-Dryable Probe 1-Step Mix makes drying technology readily accessible to all users and offers all the advantages of dried assays — simplified logistics and storage, reduced shipping costs, and enhanced assay stability at ambient temperatures.

Ease of use

This powerful mix comes in a single tube format and contains all excipients needed for stable drying, minimising handling steps during assay setup. Users only need to add primers, probes, for single or multiplex detection, and optionally ROX reference dye prior to drying. Reconstitution is achieved simply by adding sample in water to the final volume and briefly vortexing. Allowing maximum flexibility in assay development while remaining simple and easy to use.

Full traceability

Critically, we conform to Quality Management System standard ISO 13485, ensuring full product traceability, and optimum lot-to-lot consistency. Assay developers can therefore be confident in using the new air-dryable mix to create the highest-quality tests.

Catalogue Number	Product Name	Pack Size	Presentation
PB90.21-03	Air-Dryable Probe 1-Step Mix	600 reactions	3 x 1 mL
PB90.21-10		2000 reactions	2 x 5 mL
PB90.21-50		10 000 reactions	1 x 50 mL
PB90.21-500		100 000 reactions	1 x 500 mL