Clara® **Inhibitor-Tolerant Probe 1-Step Mix**

- Sensitive detection
- Inhibitor-tolerance
- Fast cycling

Unlock the power of precise RT-qPCR analysis with Clara® Inhibitor-Tolerant Probe 1-Step Mix. This broad-spectrum, inhibitor-tolerant RT-qPCR mix is expertly designed to overcome challenging laboratory, environmental, and clinical sample inhibitors, ensuring reliable results and streamlined workflows for your research. UNG and dUTP formats available for reduced carryover contamination.

Features

- Broad spectrum inhibitor tolerance
- Concentrated 4x mix format
- Single and multiplex detection of DNA and RNA
- Contains modified UltraScript® 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
- Standard and ultra-fast cycling
- UNG/dUTP formulation available

Applications

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

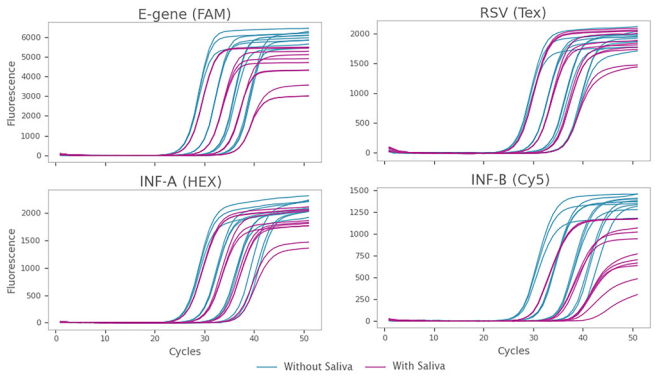

Fig 1. Fourplex detection of viral RNA targets with and without saliva.

Four RNA targets, SARS-CoV-2 E-gene (E-gene), Respiratory Syncytial Virus (RSV), Influenza-A (INF-A), and Influenza-B (INF-B), were amplified, in the presence (purple) and absence (blue) of human saliva, in multiplex 1-step RT-qPCR reactions with Clara® Inhibitor-Tolerant Probe 1-Step Mix. Four template dilutions (4000, 400, 40, and 4 copies) with three technical replicates for each target were used in 20 µL reactions. Reactions with saliva contained 5 µL saliva diluted 1/10 in universal transport medium, corresponding to 2.5% human saliva per reaction. Cycling conditions were: 47 ˚C for 10 min, 95 ˚C for 2 min, followed by 50 cycles of 95 ˚C for 10 s, and 60 ˚C for 30 s. Clara® Inhibitor-Tolerant Probe 1-Step Mix successfully amplifies RNA targets in multiplex setup even in the presence of human saliva.

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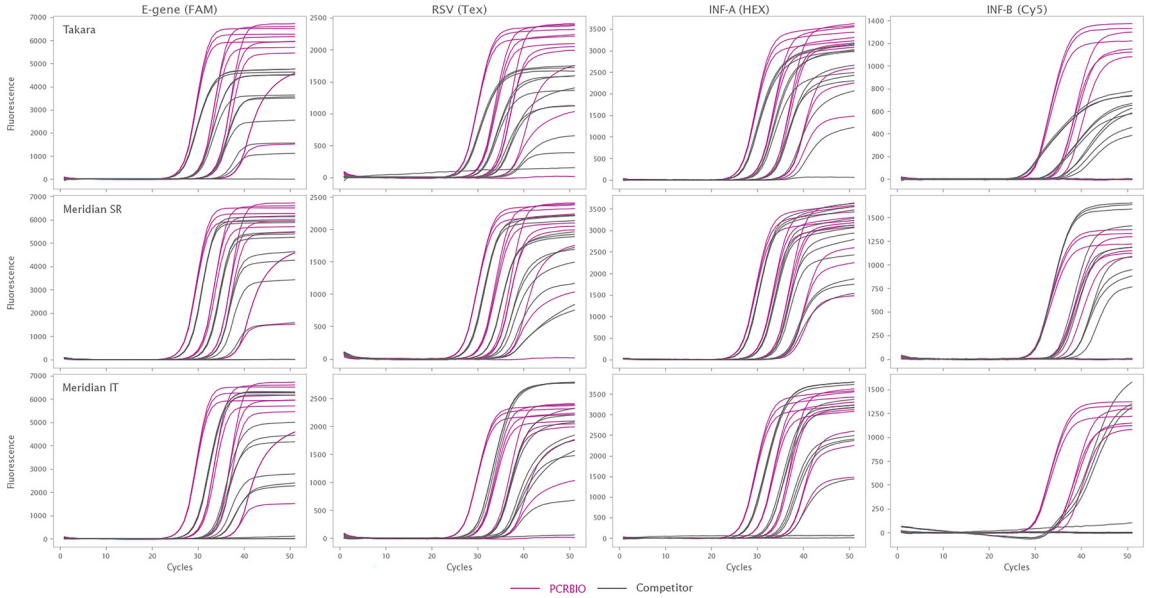

Fig 2. Competitor comparison of Clara® Inhibitor-Tolerant Probe 1-Step Mix with competitor mixes.

Four RNA targets, SARS-CoV-2 E-gene (E-gene), Respiratory Syncytial Virus (RSV), Influenza-A (INF-A), and Influenza-B (INF-B) were amplified, in the presence of human saliva, in multiplex 1-step RT-qPCR reactions with: Clara® Inhibitor-Tolerant Probe 1-Step Mix (purple, PCRBIO), One Step PrimeScript III RT-PCR Kit from Takara (grey, Takara), Air-Dryable Direct RNA/DNA qPCR Saliva (grey, Meridian SR), and Inhibitor-Tolerant RT-qPCR Mix (grey, Meridian IT) from Meridian. Four template dilutions (4000, 400, 40, and 4 copies) with three technical replicates for each target were used in 20 µL reactions. Reactions with saliva contained 5 µL saliva diluted 1/10 in universal transport medium, corresponding to 2.5% human saliva per reaction. Clara® Inhibitor-Tolerant Probe 1-Step Mix matches or outperforms three competitor products in multiplex setup in the presence of human saliva.

All-in-one qPCR mix

Clara® Inhibitor-Tolerant Probe 1-Step Mix is an all-in-one, 4x mastermix for 1-step RT-qPCR with universal probe compatibility. It contains RNase inhibitor along with 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.

Inhibitor-tolerant RT-qPCR mix

Clara® Inhibitor-Tolerant Probe 1-Step Mix has been extensively tested against:

- Crude saliva (10%)
- Crude blood (6%)
- Laboratory chemicals (SDS, guanidine, ethanol)
- Clinical inhibitors (hemin, hemoglobin, heparin, lactoferrin, immunoglobulins, urea)
- Plant, and environmental inhibitors (humic acid, catechin, quercetin, tannic acid, cellulose, and chlorophyll).

Catalogue Number		Product Name	Pack Size	Presentation
No UNG	With UNG			
PB25.91-01	-	Clara® Inhibitor-Tolerant Probe 1-Step Mix Lo-ROX (UNG)	200 reactions	1 x 1 mL
PB25.91-03	PB26.91-03		600 reactions	3 x 1 mL
PB25.91-05	-		1000 reactions	5 x 1 mL
PB25.91-50	PB26.91-50		10000 reactions	1 x 50 mL
PB25.92-01	-	Clara® Inhibitor-Tolerant Probe 1-Step Mix Hi-ROX (UNG)	200 reactions	1 x 1 mL
PB25.92-03	PB26.92-03		600 reactions	3 x 1 mL
PB25.92-05	-		1000 reactions	5 x 1 mL
PB25.92-50	PB26.92-50		10000 reactions	1 x 50 mL
PB25.93-01	-	Clara® Inhibitor-Tolerant Probe 1-Step Mix No-ROX (UNG)	200 reactions	1 x 1 mL
PB25.93-03	PB26.93-03		600 reactions	3 x 1 mL
PB25.93-05	-		1000 reactions	5 x 1 mL
PB25.93-50	PB26.93-50		10000 reactions	1 x 50 mL
PB25.94-01	-	Clara® Inhibitor-Tolerant Probe 1-Step Mix Separate-ROX (UNG)	200 reactions	1 x 1 mL
PB25.94-03	PB26.94-03		600 reactions	3 x 1 mL
PB25.94-05	-		1000 reactions	5 x 1 mL

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