

# Clara<sup>®</sup> Inhibitor-Tolerant Probe Mix



- Sensitive DNA quantification
- Inhibitor-tolerance
- Fast cycling

Get cutting edge DNA detection even in the presence of PCR inhibitors with Clara<sup>®</sup> Inhibitor-Tolerant Probe Mix. This broad-spectrum, inhibitor-tolerant qPCR mix is expertly designed to overcome challenging laboratory, environmental, and clinical sample inhibitors, ensuring reliable results and streamlined workflows for DNA detection. UNG and dUTP formats available for reduced carryover contamination.

## Features

- Broad spectrum inhibitor tolerance
- Concentrated 4x mix format, ideal for high-throughput, highly multiplexed assays
- Superior detection of DNA targets
- Reliable quantification of low template amounts
- 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

- Species abundance quantification
- Genotyping
- Allelic discrimination
- In vitro diagnostic kit development
- Single & multiplex DNA detection
- Crude saliva qPCR

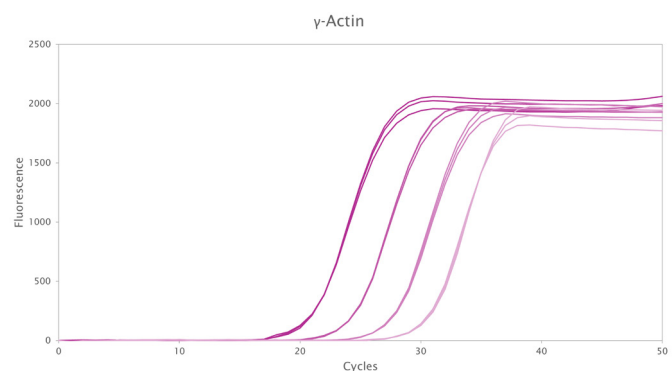


Fig 1. Detection of a DNA target with Clara<sup>®</sup> Inhibitor-Tolerant Probe Mix.

Clara<sup>®</sup> Inhibitor-Tolerant Probe Mix was used to amplify a serial dilution of  $\gamma$ -actin in a probe-based qPCR reaction. Four template dilutions (250, 25, 2.5, and 0.25  $\mu\text{g}/\mu\text{L}$  per reaction) with three technical replicates for each target were used in 20  $\mu\text{L}$  reactions. Cycling conditions were: 95  $^{\circ}\text{C}$  for 3 min, followed by 50 cycles of 95  $^{\circ}\text{C}$  for 10 s, and 60  $^{\circ}\text{C}$  for 20 s. Clara<sup>®</sup> Inhibitor-Tolerant Probe Mix successfully amplifies cDNA targets from as little as 0.25  $\mu\text{g}/\mu\text{L}$  per reaction.



PCRBIOSYSTEMS  
simplifying research

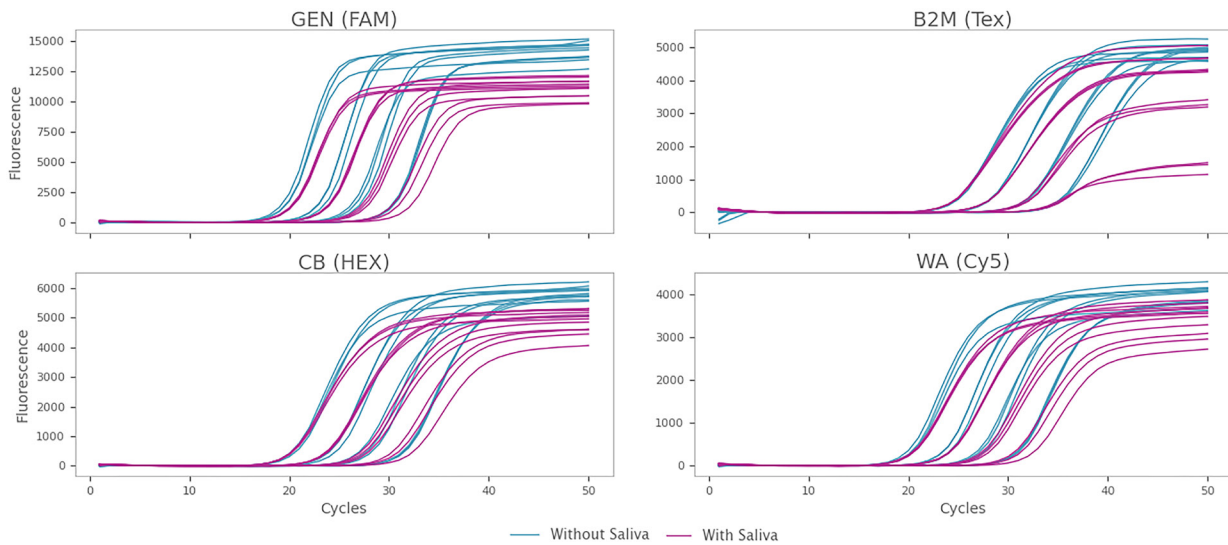


Fig 2. Fourplex detection of DNA targets with and without saliva.

Four DNA targets, GEN (general MPX),  $\beta$ -microtubulin (B2M), CB (Congo Basin MPX), WA (West Africa MPX), were amplified, in the presence (purple) and absence (blue) of human saliva, in a multiplex qPCR assay with Clara<sup>®</sup> Inhibitor-Tolerant Probe Mix. Four template dilutions (10 000, 1000, 100, and 10 copies for the monkeypox (MPX) viral targets, and 250, 25, 2.5, and 0.25  $\mu\text{g}/\mu\text{L}$  DNA for B2M), with three technical replicates for each target, were used in 20  $\mu\text{L}$  reactions. Reactions with saliva contained 5  $\mu\text{L}$  saliva diluted 1/10 in universal transport medium, corresponding to 2.5% human saliva per reaction. Clara<sup>®</sup> Inhibitor-Tolerant Probe Mix successfully amplifies DNA targets in multiplex setup even in the presence of human saliva.

## Powerful qPCR mix

Clara<sup>®</sup> Inhibitor-Tolerant Probe Mix is engineered to enable qPCRs with the highest sensitivity and reliability on the toughest of samples. It is a universal 4x qPCR mix suitable for use with all types of probe technologies, including TaqMan, Scorpions and molecular beacons. Powered by our unique hot start Taq DNA polymerase, Clara<sup>®</sup> Inhibitor-Tolerant Probe Mix is suitable for DNA detection and for RNA detection in 2-step RT-qPCR protocols when used with a separate cDNA synthesis kit. Separate uracil N-glycosylase (UNG) and dUTP formats are also available.

## Robust Inhibitor Tolerance

Clara<sup>®</sup> 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			
PB20.71-01	-	Clara <sup>®</sup> Inhibitor-Tolerant Probe Mix Lo-ROX (UNG)	200 reactions	1 x 1 mL
PB20.71-03	PB21.71-03		600 reactions	3 x 1 mL
PB20.71-05	-		1000 reactions	5 x 1 mL
PB20.71-50	PB21.71-50		10000 reactions	1 x 50 mL
PB20.72-01	-	Clara <sup>®</sup> Inhibitor-Tolerant Probe Mix Hi-ROX (UNG)	200 reactions	1 x 1 mL
PB20.72-03	PB21.72-03		600 reactions	3 x 1 mL
PB20.72-05	-		1000 reactions	5 x 1 mL
PB20.72-50	PB21.72-50		10000 reactions	1 x 50 mL
PB20.73-01	-	Clara <sup>®</sup> Inhibitor-Tolerant Probe Mix No-ROX (UNG)	200 reactions	1 x 1 mL
PB20.73-03	PB21.73-03		600 reactions	3 x 1 mL
PB20.73-05	-		1000 reactions	5 x 1 mL
PB20.73-50	PB21.73-50		10000 reactions	1 x 50 mL
PB20.74-01	-	Clara <sup>®</sup> Inhibitor-Tolerant Probe Mix Separate-ROX (UNG)	200 reactions	[1 x 1 mL mix] & [1 x 200 $\mu\text{L}$ ROX]
PB20.74-03	PB21.74-03		600 reactions	[3 x 1 mL mix] & [1 x 200 $\mu\text{L}$ ROX]
PB20.74-05	-		1000 reactions	[5 x 1 mL mix] & [1 x 200 $\mu\text{L}$ ROX]