IndiMix™ TAMRA

May 2023| EN

1.5 mL (Cat. no. MX299985)
15 mL (Cat.no. MX299987)

Contents	Number of vials	Volume	Storage Conditions
Buffer, enzymes, primers, and probe to identify the intype® IC-DNA and IC-RNA Internal Control	1 (Cat. no. MX299985) 10 (Cat. no. MX299987)	1.50 mL	-30ºC to -15ºC

Description

IndiMix TAMRA enables real-time amplification of single or multiple nucleic acid targets and contains both, reverse transcriptase and polymerase, to amplify DNA and RNA targets. The control primers and probes are premixed to identify the intype IC-DNA (Cat. No. IC289980) Internal Control as well as the intype IC-RNA (Cat. No. IC289970) Internal Control. The intype Internal Controls are available separately from INDICAL. The probe targeting the Internal Control uses a TAMRA™ label. IndiMix TAMRA contains ROX™ dye as a passive reference dye for use on the Applied Biosystems™ instruments, including the Applied Biosystems 7500, ViiA™ 7 and QuantStudio™ Systems. IndiMix TAMRA was designed to work with the fast mode or cycling parameters of various thermocyclers.

Storage and Handling

- Upon receipt, store the material at -30°C to -15ºC, secured from any sources of contaminating DNA or RNA, especially amplified DNA
- Protect from light during storage and handling
- Avoid repeated thawing and freezing (>5x) as this may reduce performance
- If used intermittently, aliquot the material and freeze
- Use aerosol barrier pipet tips for pipetting
- Do not use after the expiration date printed on the label
- Dispose of all sample residues and objects per national and local regulations

Internal Control information

The Internal Control template, usable as extraction or amplification control, is available separately as intype IC-DNA (Cat. no. IC289980) and intype IC-RNA (Cat. no. IC289970). The internal control monitors the entire PCR workflow for the presence of inhibitors or other workflow issues, including extraction, reagent or instrument errors and failures.

- To use as an extraction control, add 2 - 5 µL of the intype IC-DNA or intype IC-RNA per sample to the lysis buffer before nucleic acid purification
- To use as an amplification control, add 0.2 - 0.4 µL of the intype IC-DNA or intype IC-RNA per PCR reaction

Procedure

Table 1. Preparation of the Reaction Mix*

Component	Volume per reaction
IndiMix TAMRA	15 µL
Primers and Probe(s) to target(s) of interest**	2 µL
Master mix***	17 µL****
Sample nucleic acid	8 µL
Total volume of PCR reaction	**25 µL**

* Use 12 µL of IndiMix TAMRA for 20 µL PCR reactions and adjust the remaining components accordingly
** A primer concentration of 400 to 800 nM and a probe concentration of 200 nM per final reaction is recommended
*** For amplification control, add the appropriate intype IC-DNA/RNA volume to the master mix and adjust volumes accordingly or exceed the reaction volume slightly
**** Combine IndiMix TAMRA (15 µL) and Primers and Probes (2 µL) for total Master mix volume (17 µL)

Procedural Recommendations

Attention: Please protect IndiMix TAMRA and the prepared master mix from bright and direct light, as the probes are sensitive to light. Transparent vials and tubes are recommended to allow for visual inspection when ensuring proper mixing. A medium-speed setting for automatic or stepper dispenser pipettes is recommended to ensure accurate volume transfer.

- Thaw IndiMix TAMRA on ice
- Invert IndiMix TAMRA 5 times or until mixed thoroughly, then centrifuge briefly to remove droplets from the cap
- On ice, use a sterile tube to prepare the master mix using the volumes listed in Table 1
- Invert the prepared master mix 5-10 times or until mixed thoroughly, then centrifuge briefly to remove the droplets from the cap
- Collect the master mix and transfer it to the appropriate PCR tubes/wells, handle in a PCR cooling rack or on ice
- Add 8 µl of the sample nucleic acid to the PCR tubes/wells
- Close the tubes or seal the plate and invert 5 times or until mixed thoroughly
- Spin for 5 seconds to centrifuge the droplets to the bottom of the PCR tube/wells
- Run the thermal cycler program as indicated in Table 2

Table 2. Thermal Cycler Program*

Step	Temp.	Time	Cycles
Reverse Transcription**	50°C	10 min	1
RT inactivation / initial activation	95°C	2 min	1
2-step cycling			
Denaturation	95°C	5 s	40
Annealing / Extension***	60°C	30 s	

* IndiMix TAMRA is designed to run on the fast mode or cycling parameters of thermocyclers
** Does not affect performance with DNA targets and may be left out when a run contains only DNA
*** Fluorescence data collection

The denaturation time and the annealing/extension temperature and times can be changed per lab specific configuration. Please consult INDICAL for technical support.

Analyzing the results

Carefully examine the amplification plot, adjusting the baseline and threshold values, where required. If inhibitors are not negatively affecting the result, the target and/or IC should amplify within each PCR reaction. If both the target and IC fail to amplify in a reaction, repeating the PCR amplification with a 5X dilution of the extracted sample nucleic acid in nuclease-free water is recommended. For more information, please contact INDICAL Technical Support (see below).

Quality Control

Each lot of this product was manufactured and released in accordance with INDICAL's ISO-certified Quality Management System.

Safety Information

Please consult the appropriate safety data sheets (SDSs) for this product. For more information, the SDSs are available from your regional sales manager or can be provided by emailing **compliance@indical.com**. When working with chemicals, always wear a suitable lab coat, disposable gloves, and protective goggles.

Change index

Handbook	Version	Change
HB-2638-EN-001	May 2023	Product launch

For molecular biology applications. This product is not intended for the diagnosis, prevention, or treatment of a disease.

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