

**NEW: Direct qPCR & 1Step RT qPCR kits
Including Lyo-Ready & Air-Dry versions**

Direct qPCR without template extraction

qPCR / 1Step Rt qPCR / Multiplexing - all from crude samples!

NEW highQu SampleIN™ qPCR Mixes

exhibit exceptional tolerance to various PCR inhibitors and enable efficient amplifications from crude samples, unprocessed blood or saliva specimens in both single and multiplex reactions

qPCR Mixes for DNA templates:

- SampleIN™ Direct qPCR Mix
- SampleIN™ Direct qPCR ROX L Mix
- Lyo-Ready SampleIN™ Direct qPCR Mix

To lyophilize and produce ambient temperature stable assays

RT qPCR mixes for RNA & DNA templates:

- SampleIN™ 1Step RT qPCR Mix
- SampleIN™ 1Step RT qPCR ROX L Mix
- Lyo-Ready SampleIN™ 1Step RT qPCR Kit

To lyophilize and produce ambient temperature stable assays

- AirDry SampleIN™ 1Step RT qPCR Mix

To air-dry and produce ambient temperature stable assays

More Direct qPCR related reagents:

- SampleIN™ Lysis Set for PCR/qPCR
- ROX for qPCR Mixes, 50 µM

SampleIN™ Direct qPCR Mixes are made to tolerate common inhibitors, such as:

- up to 3-7% crude saliva or crude blood in the qPCR reaction
- Chemicals left after NA extractions (guanidine, alcohols, SDS)
- Blood compounds (hematin, hemoglobin, immunoglobulins)
- Saliva and urine compounds (urea)
- Plant, soil samples (chlorophyll, humic acid, cellulose)

1. Crude Sample Lysis made simple: SampleIN™ Lysis Set for PCR/qPCR

- PCR-ready crude samples in 15 min
- Single-tube efficient DNA release
- Crude extracts for multiple PCR/qPCRs

Sample guidelines for a single 15 min lysis:

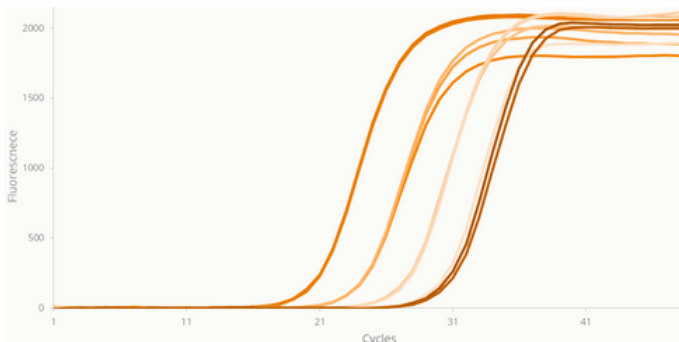
Sample (fresh or frozen)	Amount	Extraction vol.
Mouse tail	2 mm or 3-5 mg	100 µl
Mouse ear	2 mm ² or 3-5 mg	100 µl
Mammalian tissue	5 mg	100 µl
FFPE Tissue	2 mm ² of 10 µm section	100 µl
Blood (fresh/EDTA)	2 µl	100 µl
Blood Guthrie cards	2 mm ²	100 µl
Blood FTA/FTA Elute cards	2 mm ²	100 µl
Hair follicle	2 follicles	100 µl
Buccal swab	1 swab	300 µl
Plant leave	2 mm ² well crashed	100 µl
Plant seed	1 very small seed crashed or cut and crashed seed piece of 2 mm ²	100 µl

Sample amounts can be slightly increased for better yields, but too much material may cause inefficient lysis and PCR inhibition.

2. Direct qPCR made possible:

- SampleIN™ Direct qPCR Mix, 4X
- SampleIN™ Direct qPCR ROX L Mix, 4X
- Lyo-Ready SampleIN™ Direct qPCR Mix

- Inhibitor-tolerant mixes for qPCR from inhibitor-rich samples
- Multiplex qPCR using crude saliva, urine, or blood samples

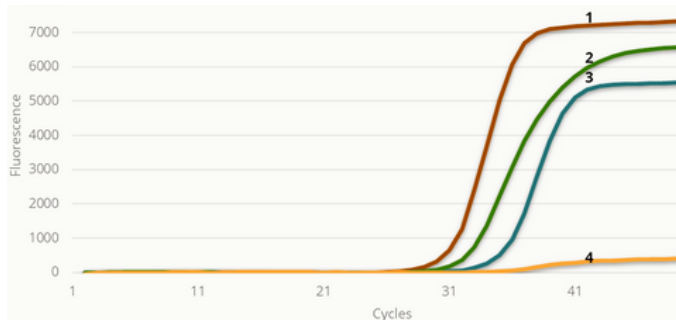


SampleIN™ Direct qPCR Mix: Accurate quantification at different template concentrations is observed in the presence of 2.5% saliva. Mouse GAPDH gene amplified in the presence (2.5% v/v) of saliva. Fast Cycling: 95°C-3 m, 50 cycles 95°C-10 s, 60°C-20 s. Reaction: 5 µl SampleIN™ Direct qPCR Mix; 0.8 µl primer, probe (400 nM final), 1 µl cDNA; 0.5 µl saliva, in 20 µl.

3. Crude Sample RT qPCR made possible:

- SampleIN™ 1Step RT qPCR Mix, 4X
- SampleIN™ 1Step RT qPCR ROX L Mix, 4X
- AirDry SampleIN™ 1Step RT qPCR Mix, 4X
- Lyo-Ready SampleIN™ 1Step RT qPCR Kit

- Inhibitor-tolerant mixes for RT qPCR from inhibitor-rich samples
- Multiplex RT qPCR using crude saliva, urine, or blood samples



SampleIN™ 1Step RT qPCR Mix: Robust RNA amplification in the presence of 2.5% of unprocessed saliva. Covid E-gene RNA amplified in the presence (2.5%, curve2) and absence (0%, curve1) of saliva. Inhibitor tolerant mix from another supplier (2.5% saliva, curve4 and 0% saliva, curve3) failed in this experiment. Fast Cycling: 47°C-10 m, 95°C-3 m, 50 cycles-95°C-10 s & 60°C-20 s. Reaction: 5 µl SampleIN™ 1Step RT qPCR Mix; 0.8 µl primer, probe (400 nM final), 1 µl RNA; +/- 0.5 µl saliva, in 20 µl.

4. Pathogen DNA/RNA detection assays that are stable at room temperature and work with crude samples - made possible by:

- Lyo-Ready SampleIN™ Direct qPCR Mix
- Lyo-Ready SampleIN™ 1Step RT qPCR Kit
- AirDry SampleIN™ 1Step RT qPCR Mix, 4X

- Lyo-Ready and Air-Dryable versions available!
- Inhibitor-tolerant mixes for (RT) qPCR from inhibitor-rich samples
- Remain as sensitive after reconstitution as they were before the lyophilization
- Dried Mixes are stable for a year at ambient temperature
- Outperform competitors in parallel tests

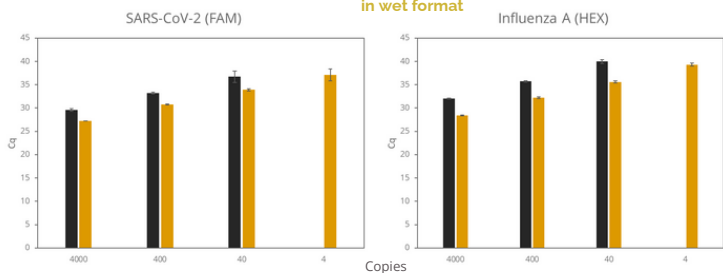
NEW: Direct qPCR & 1Step RT qPCR samples: highqu.com/samples

ENZYMES MADE TO AMPLIFY

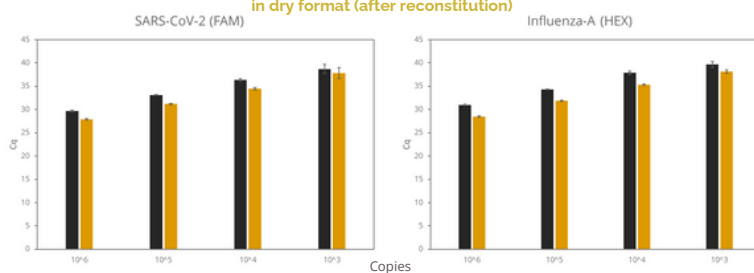
New Lyo-Ready Direct qPCR and 1Step RT qPCR Kits for assay development

Lyo-Ready SampleIN™ 1Step RT qPCR Kit outperforms competitor B both in wet format and after the reconstitution of dried kit and ensures great performance after reconstitution of the dried kit

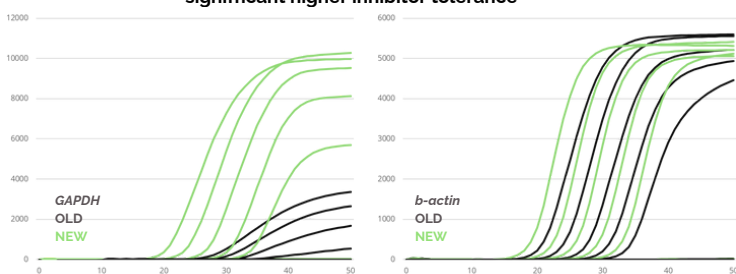
Lyo-Ready SampleIN™ 1Step RT qPCR Kit delivers lower Cq compared to competitor in wet format



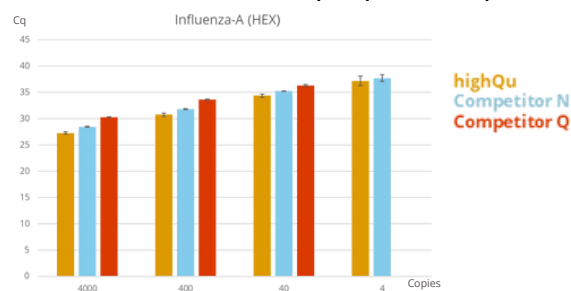
Lyo-Ready SampleIN™ 1Step RT qPCR Kit delivers lower Cq compared to competitor in dry format (after reconstitution)



NEW Lyo-Ready Inhibitor Tolerant SampleIN™ 1Step RT qPCR Kit outperforms our common older Lyo-Ready 4X 1Step RT qPCR Probe Kit up to 4Cq improvement, and significant higher inhibitor tolerance



NEW Lyo-Ready SampleIN™ 1Step RT qPCR Kit outperforms main competitors delivers either similar or lower Cq compared to competitors



Try them!

NEW Inhibitor Tolerant Direct qPCR/RT qPCR Mixes and other Crude Sample qPCR Tools

DQP010S SampleIN™ Direct qPCR Mix
 DQP020S SampleIN™ Direct qPCR ROX L
 DQP020S **Lyo-Ready SampleIN™ Direct qPCR Mix**

DOS010S SampleIN™ **1Step RT qPCR Mix**
 DOS020S SampleIN™ **1Step RT qPCR ROX L Mix**
 DOS010AD **AirDry SampleIN™ 1Step RT qPCR Mix**
 DOS010LR **Lyo-Ready SampleIN™ 1Step RT qPCR Kit**

DPL010S SampleIN™ Lysis Set for PCR/qPCR
 ROX0101 ROX for qPCR Mixes, 50 µM

qPCR Mixes for Probes

QPP010S ORA™ qPCR Probe Mix
 QPP040S ORA™ SEE qPCR Probe Mix
 QPP020S ORA™ qPCR Probe ROX L Mix
 QPP050S ORA™ SEE qPCR Probe ROX L Mix

qPCR Mixes with Dye

QPD010S ORA™ qPCR Green ROX L Mix
 QPD050S ORA™ SEE qPCR Green ROX L Mix
 QPD030S ORA™ qPCR HRM Mix

One Step RT qPCR Kits for Probes

QOP040S 4X 1Step RT qPCR Probe Kit
 QOP050S 4X 1Step RT qPCR Probe ROX L Kit
 QOP110S 2X 1Step RT qPCR Probe Kit
 QOP120S 2X 1Step RT qPCR Probe ROX L Kit

One Step RT qPCR Kits with Dye

QOD010S 1Step RT qPCR Green ROX L Kit

Direct PCR

DPK010S SampleIN™ Direct PCR Kit

Isothermal Amplification

IDK0101 ALLin™ Isothermal DNA Amplification Kit
 IRK0101 ALLin™ Isothermal 1Step RNA Amplification Kit
 IDE010S phi29 DNA Polymerase
 IDE020E ALLin™ Bst DNA Polymerase
 IDE030E ALLin™ Hot Start Bst Polymerase
 IDK0201 ALLin™ HS Isothermal DNA Amplification Kit
 IDK0301 ALLin™ HS Iso-Colorimetric DNA Amplification Kit

Standard PCR

PCE010S ALLin™ Taq DNA Polymerase
 PCM020S ALLin™ Red Taq Mastermix
 PCM010S ALLin™ Taq Mastermix
 PCE020S Taq DNA Polymerase

Hot Start PCR and Direct PCR

HSE010S ALLin™ Hot Start Taq Polymerase

High Fidelity and Long PCR

HLE010S ALLin™ RPH Polymerase
 HLM010S ALLin™ RPH Mastermix
 HLE020S ALLin™ HiFi DNA Polymerase
 HLE030S ALLin™ Mega HiFi DNA Polymerase
 HLM020S ALLin™ Mega HiFi Mastermix
 HLM030S ALLin™ Mega HiFi Red Mastermix
 HLE040S ALLin™ Mega HS HiFi DNA Polymerase
 HLM040S ALLin™ Mega HS HiFi Mastermix
 HLM050S ALLin™ Mega HS HiFi Red Mastermix

PCR related Reagents & Kits

PRK0101 Proteinase K MBG Solution
 SCR0101 Synthetic Carrier RNA
 PDK0101 PCRbeam™ Fast PCR Detection Kit
 NUM010S 25 mM dNTP Mix

Reverse Transcription & RT-PCR

RTK020S 1Step RT PCR Kit
 RTK010S qScriber™ cDNA Synthesis Kit
 RTM030S HighScriber™ Reverse Transcriptase Mix
 RNI030S SecurIN™ Advanced RNase Inhibitor

Ladders for DNA Electrophoresis

DNL010S Take5™ 1kb DNA Ladder
 DNL030S Take5™ 50 bp DNA Ladder
 DNL020S Take5™ 100 bp DNA Ladder
 DNL040S Take5™ HR DNA Ladder

Novel NA Stains for DNA Electrophoresis

NAS030S StainIN™ eco-RED Nucleic Acid Stain
 NAS020S StainIN™ GREEN Nucleic Acid Stain

Ladders for Protein Electrophoresis

PRL010S Cozy™ Prestained Protein Ladder
 PRL020S CozyHi™ Prestained Protein Ladder
 PRL030S CozyXL™ Prestained Protein Ladder