

QuantiNova Real-Time PCR Kits

QuantiNova® Kits represent today's most advanced portfolio of real-time PCR and RT-PCR kits for gene expression analysis, gene quantitation and pathogen detection. QuantiNova Kits offer a unique combination of in-process controls allowing:

- Precise and reproducible quantitation by removing variables and errors
- Efficiency gains from streamlining experiments and laboratory workflows

Where QuantiNova fits in your experiments

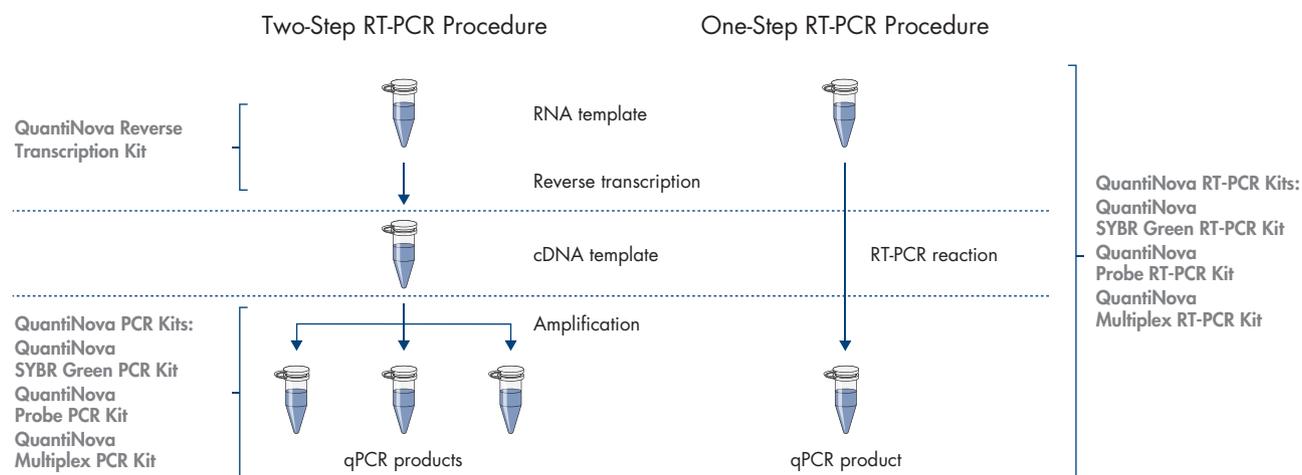


Table 1. Improve your qPCR/RT-qPCR success with built-in safety measures or procedural improvements:

Built-in visual pipetting control	Prevent human error and stress with simple, visual verification of correct reagent dispensing
Internal Control RNA and Assays (accessory)	No more misquantitation due to inhibitor presence
Novel QuantiNova Guard hot start for PCR	Get premium specificity and room temperature set-up with stringent polymerase control
Unique 2-phase hot start for 1-step RT-PCR	True room temperature set-up with Taq and RT enzyme perfectly inactive before hot start
Ultrafast protocols for cDNA and PCR	Get results faster: ~1 hour from RNA to result on any common cyclor
Extremely high sensitivity (down to 1 copy)	More confidence in your results – Detect even a single target molecule
Reverse transcription with integrated gDNA removal	Prevents misquantitation due to gDNA presence
Up to 5-plex multiplexing capacity	Get richer results & simultaneous assay of internal controls

How QuantiNova kits increase the accuracy and efficiency of your qPCR/RT-qPCR

Built-in controls and safety measures – Simply prevent human errors and misquantitation

- **Visual pipetting:** Get simple, visual verification of correct reagent dispensing and template addition. The blue master mix and the yellow sample dilution buffer turn green upon reaction set-up. Avoid stress and human errors, particularly, when working in 96- or 384-well formats.
- **Internal Control RNA:** Confirm successful reverse transcription and PCR and avoid transcript misquantitation with the reporting of PCR signal reduction due to inhibitor presence. Reproducible results in gene expression or diagnostic procedures require reliable controls.
- **Genomic DNA removal:** Prevent transcript misquantitation due to primers amplifying the gDNA coding the target mRNA, with integrated gDNA removal. gDNA treatment is particularly important if intron-exon spanning primers cannot be used.
- **Multiplex capacity:** Get the security and throughput of simultaneously detecting internal controls, or additional targets with our probe-based kits. Increase precision by avoiding pipetting variations, edge effects and other variable factors by running controls or references in your reaction well. The 5-plex capacity of the (RT-)qPCR multiplex kits significantly increases efficiency – multiple results from a single run, with reduced effort, reagents and precious sample material.



Unique, stringent PCR and RT enzyme hot start – Automation-ready, true room temperature set-up

- **QuantiNova Guard mediated PCR hot start:** Totally dependable, room temperature set-up. The novel QuantiNova Guard molecule, prevents room temperature leakage and premature enzyme activity in our advanced antibody-mediated PCR hot start. This ensures outstanding specificity and sensitivity for reliable results.

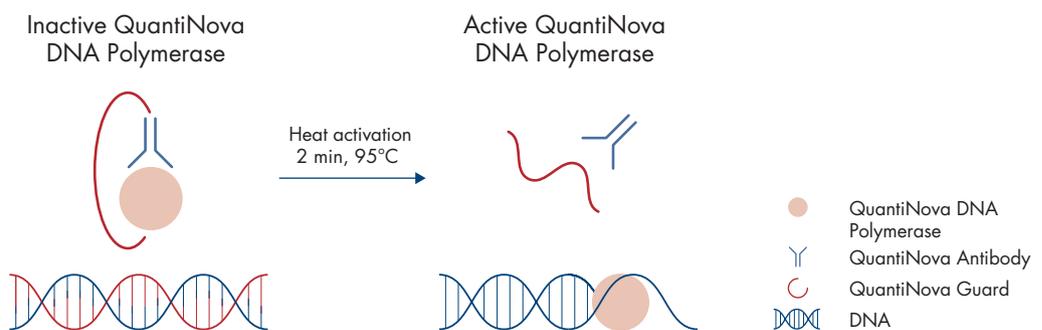


Figure 1. Principle of the novel QuantiNova hot-start mechanism. QuantiNova DNA Polymerase is kept in an inactive state by QuantiNova Antibody and QuantiNova Guard until the initial heat activation step.

- **2-Phase hot start for 1-step RT-PCR:** Get consistently reliable, room temperature reaction set-up with our unique chemistry that keeps both RT enzyme and Taq inactive at room temperature. This enables automated set-up and increases workflow efficiency ensuring superior specificity.

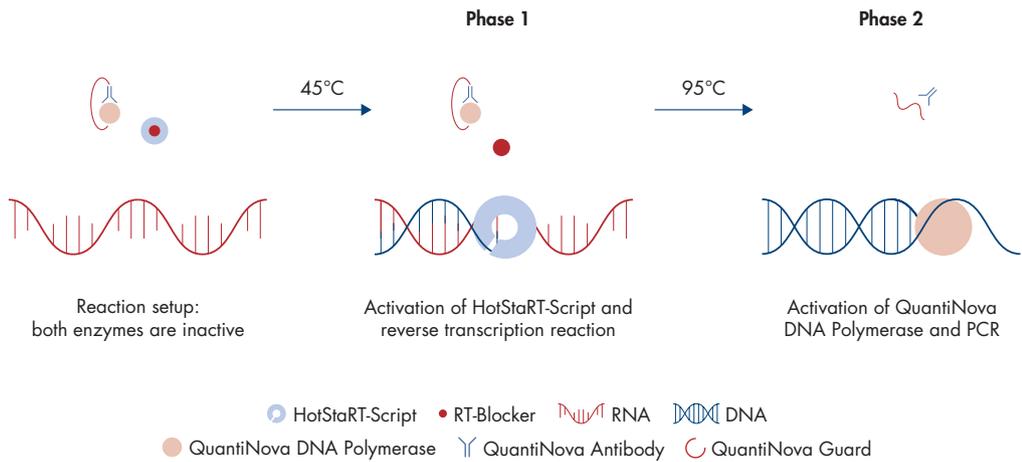


Figure 2. Principle of the novel QuantiNova two-phase hot start. At ambient temperature the HotStaRTScript is inhibited by the RT-Blocker and the QuantiNova DNA Polymerase is kept inactive by QuantiNova Antibody and QuantiNova Guard. At 45°C the RT is activated while the QuantiNova DNA polymerase remains inactive. At 95°C the RT enzyme is denatured and the DNA polymerase is activated.

Find the right QuantiNova Kit for your workflow

	QuantiNova SYBR Green PCR Kit		QuantiNova Probe PCR Kit		QuantiNova Multiplex PCR Kit		QuantiNova Reverse Transcription Kit		QuantiNova SYBR Green RT-PCR Kit		QuantiNova Probe RT-PCR Kit		QuantiNova Multiplex RT-PCR Kit		QuantiNova Pathogen +IC Kit	
Starting material	cDNA or gDNA						RNA						DNA/RNA			
Use in quantitative RT-PCR	2-Step						cDNA synthesis	1-Step								
Detection chemistry	SYBR® Green I	Probes	Probes				SYBR Green I	Probes	Probes	Probes	Probes	Probes	Probes	Probes	Probes	Probes
Multiplexing		2-plex	5-plex					2-plex	5-plex	5-plex	4-plex	4-plex	4-plex	4-plex	4-plex	4-plex
Internal control provided							Internal Control RNA						IC DNA/ RNA & assay			
Visual pipetting control	•	•	•				•	•	•	•	•	•	•	•	•	•
gDNA removal						•		•								
Room temperature set-up	•	•	•				•	•	•	•	•	•	•	•	•	•

Dedicated kit for pathogen detection: Detect RNA and DNA pathogens simultaneously with pre-optimized internal controls that can be used as extraction or amplification controls in 4-plex reactions with the QuantiNova Pathogen +IC Kit – With visual pipetting control and room temperature set-up for easy automation and additional safety and efficiency.

Ordering Information

Product	Description	Cat. no.
QuantiNova Reverse Transcription Kit	Ultrafast, 20 min cDNA synthesis from 10 pg – 5 µg total RNA, for use in 2-step, real-time RT-PCR; including gDNA removal and internal control RNA	205410 (10)
		205411 (50)
		205413 (200)
QuantiNova SYBR Green PCR Kit	Robust and sensitive detection of as little as one copy of cDNA or gDNA target using SYBR Green I; With built-in stringent hot start and visual pipetting control for verification of reagent dispensing and template addition	208052 (100)
		208054 (500)
		208056 (2500)
QuantiNova Probe PCR Kit	Accurate detection of rare targets down to one copy with duplex capacity for addition of control or reference genes. Featuring visual pipetting control and QuantiNova Guard mediated hot start	208252 (100)
		208254 (500)
		208256 (2500)
QuantiNova Multiplex PCR Kit	Preoptimized, multiplex qPCR using probes. Sensitive quantitation of low- and high-abundance targets; up to 5 targets in 1 tube. Automation-ready with unique hot-start procedure for room temperature set-up.	208452 (100)
		208454 (500)
		208456 (2500)
QuantiNova SYBR Green RT-PCR Kit	Highly sensitive 1-step RT-PCR using SYBR Green I giving accurate quantitation over several logs of template; featuring visual pipetting control, unique 2-Phase hot start and Internal Control RNA	208152 (100)
		208154 (500)
		208156 (2500)
QuantiNova Probe RT-PCR Kit	Probe-based, 1-step RT-qPCR for sensitive quantitation of low- and high-abundance RNA targets; featuring visual pipetting control, unique 2-Phase hot start, Internal Control RNA and gDNA reduction with duplex capacity	208352 (100)
		208354 (500)
		208356 (2500)
QuantiNova Multiplex RT-PCR Kit	Preoptimized, multiplex 1-step RT-qPCR. Direct amplification from a single cell or up to 800 ng of RNA template; optimized for up to 5-plex with varying target abundance. Automation-ready visual pipetting control, room temperature set-up and built-in amplification control	208552 (100)
		208554 (500)
		208556 (2500)
QuantiNova Pathogen +IC Kit	Simultaneous detection of viral RNA/DNA and bacterial DNA including internal control DNA and RNA plus assay, visual pipetting control and unique 2-Phase hot start, optimized for 4-plex	208652 (100)
		208654 (500)

To learn more about QIAGEN QuantiNova kits visit: www.qiagen.com/quantinova.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at www.qiagen.com or can be requested from QIAGEN Technical Services or your local distributor.

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