



## Pain points

- Diagnostic test is not sensitive enough
- Difficult to multiplex
- Reagents are not stable over time when placed on automation decks
- Complexity in RNA virus structure prevents detection
- Challenges with logistics and transport of non-lyophilized reagents

## Trigger Words

- Infectious disease
- RT-qPCR
- Viruses
- COVID
- Benchtop stability
- Centralized testing
- RNA

## Discovery questions

- Are you developing diagnostic tests to detect RNA viruses?
- What LOD is required for your viral MDx tests?
- If you could detect highly structured RNA viruses without added steps in the protocol, would this be a benefit?
- How long does your fully assembled RT-qPCR reaction sit at room temperature before its cycled?
- Are you developing a panel of diagnostic tests that require multiplexing?

## Features and benefits

Features	Customer Benefit
5X Formulation	Higher sensitivity is gained as more clinical sample can be added to the final reaction
Detects both RNA and DNA templates	One Master Mix can be used to detect bacterial and viral pathogens.
Wide dynamic range in multiplex reactions	One Master Mix can be used to detect multiple pathogens in one reaction
Heat-activated, thermostable reverse transcriptase enables room-temperature set-up and cDNA synthesis at elevated temperatures.	Sensitivity (low LODs) is gained as more on target and less non-specific, amplification occurs
	Previously complex viruses can now be detected. The thermostable RT can tolerate high temperatures that are required to disrupt and denature complex RNA structures so PCR can occur
RT-qPCR master mix is stable over a wide temperature range.	More tests may be processed per automation run. Reagents or fully assembled IVD tests can be stored for longer periods of time on high throughput automation decks
Lyo-compatible formulation	To enable the manufacture of lyophilized MDx tests for improved logistics and transport

For internal use only

# RapiDxFire Lyo-Flex 1-Step RT-qPCR 5X Master Mix

Centralised testing labs, LDTs

RapiDxFire Lyo-Flex 1-step RT-qPCR 5X Master Mix is for clinical lab directors, who want to develop LDTs for pathogen detection.

## So what?

This single tube, 1-step master mix provides robust cDNA synthesis at elevated temperatures, extended reaction stability at room temperature, and lot-to-lot reproducibility that enables seamless automated workflows for sensitive and reliable pathogen detection, including previously intractable viruses.

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# Competitive Landscape

				MASTER MIX		
				LGC RapiDxFire Lyo-Flex		
List Price/rxn (1000-2500rxns)	\$1.10	\$1.96	\$1.76	\$1.80	?	?
Number of tubes	1	1	1	1	2	2
High Concentration Formulation	4x	4x	4x	5x	2x	2x
Fully Assembled Rxn, RoomTemperature Stability (≥2Hours)						
Lyo-compatible claim						
COVID, FLU Assay 4-PLEX						
Rnase inhibitor included in mix						
dUTP included in the mix						
UNG included in mix						

## Which RapiDxFire Master Mix is right for your IVD Manufacturer (Centralised Testing)

	For Centralized Test Development (LDTs)			
Pathogen	Viral (DNA), bacterial	Viral (RNA)		Viral (DNA and RNA),bacterial
Recommended Master Mix	qPCR 5X MM GF	1-step RT- qPCR System	Lyo-Flex 1-step RT-qPCR 5XMM	Lyo-Flex 1-step RT-qPCR 5X MM
Format	1 tube	2 tubes	1 tube	1 tube
Includes ROX	No	No	No	No
Bench top reactionstability	48 h	1 h	8 h	8 h
Recommended RT temperature	N/A	50 °C	60 °C	60 °C
Multiplexing	Yes	Yes	Yes	Yes
Can be combined with UNG for carry covercontrol	No	No	ContainsdUTPcompatible with UNG	ContainsdUTPcompatiblewith UNG
Labeled Use	GPR	GPR	GPR	GPR