Thomas Scientific

LaunchWorks
Letting You Focus on Science

LaunchWorks One-Step RT-qPCR Master Mix: Sensitive, Reproducible Detection

The LaunchWorks One-Step RT-qPCR Master Mix was designed for sensitive and reproducible detection of RNA and/or DNA targets in a single multiplex RT-qPCR reaction. The 2X format was developed to guarantee simple reaction setup and robust performance. The Master Mix has been formulated and is manufactured in LaunchWorks' ISO 13485, cGMP compliant facility, ensuring stringent production and quality control measures.

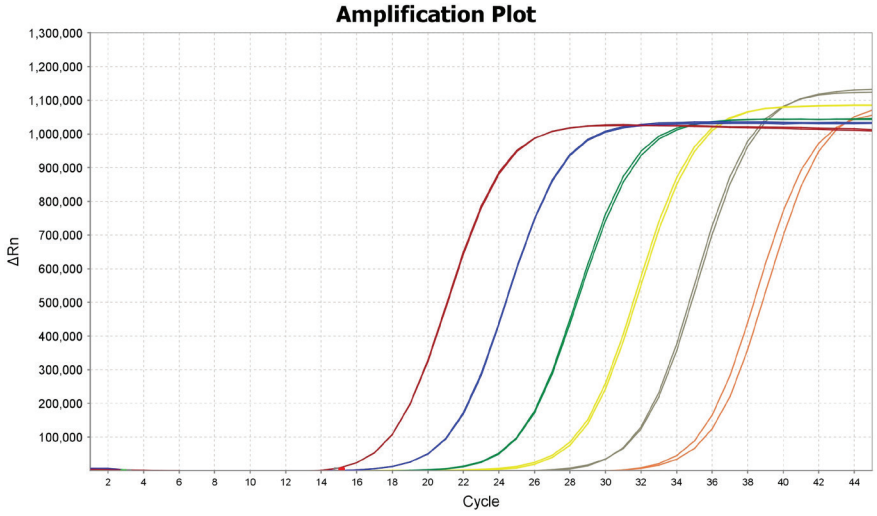
Stand Out Features

- Ability to run multiplexed reactions
- Robust sensitivity for high and low-copy targets
- ISO 13485:2016 certified facility
- Built in tolerance to common clinical sample inhibitors
- Compatible with a range of RT-qPCR equipment
- Manufactured under cGMP conditions

Only three steps from sample prep (i.e. RNA extraction) to getting results from your RT-qPCR results:
1) reagent mixing 2) plate dispensing 3) RT-qPCR method running

Broad Dynamic Range

A master mix must be reliable across a dynamic range of copy numbers for any desired target. This is especially true in a clinical setting where pathogens may be present at low titers. Every lot of this 2X One-Step RT-qPCR Master Mix undergoes quality control performance testing across 6 magnitudes of SARS CoV-2 E-gene template RNA. The master mix is designed to use only a single assay protocol to test for either (or both) RNA and DNA and requires no passive dye.



SAMPLES AVAILABLE!

2x One-Step RT-qPCR Master Mix, one tube containing material for 100 reactions

Thomas No. CHM01P930

Click here to get yours

Figure: Sensitive and reproducible detection across 6 magnitudes of SARS CoV-2 E-gene RNA template, testing down to 27 copies. Amplification plot using the 2X One-Step RT-PCR Master Mix, and the 2019-nCoV Primer Probe Panel (Charité/Berlin) available from IDT, with FAM probe detection.

High Sensitivity

Performance of LaunchWorks produced master mix is comparable to ThermoFisher's 4X TaqPath 1-Step Multiplex Master Mix. As the copy number of E-gene present in the assay decreases, the LaunchWorks master mix amplification curve plateau reads stronger than the Thermo Fisher master mix.

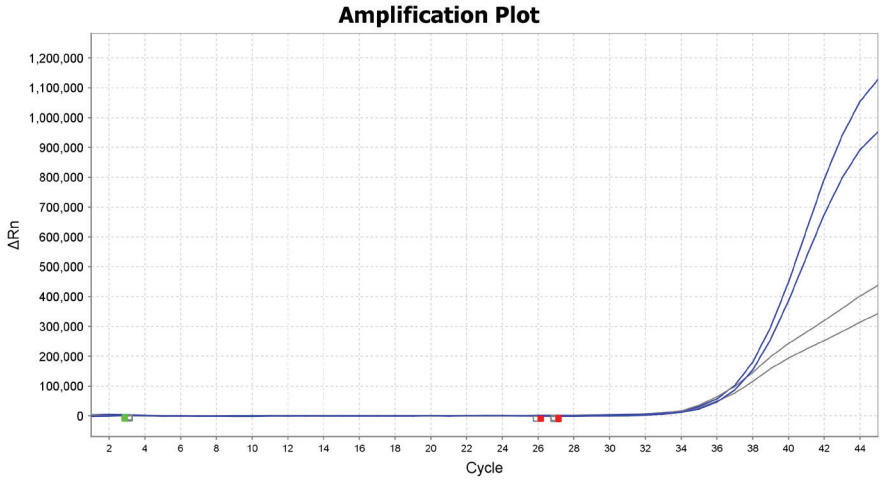


Figure: Detection of 1 copy of SARS CoV-2 E-gene target in extracted reference material - Launchworks 2X One-Step RT-PCR Master Mix (blue) vs. Thermo Fisher 4X TaqPath 1-Step Multiplex Master Mix (grey).

Consistent Performance

Strict lot-to-lot quality control for critical components ensures consistent performance of the LaunchWorks 2X One-Step RT-qPCR Master Mix.

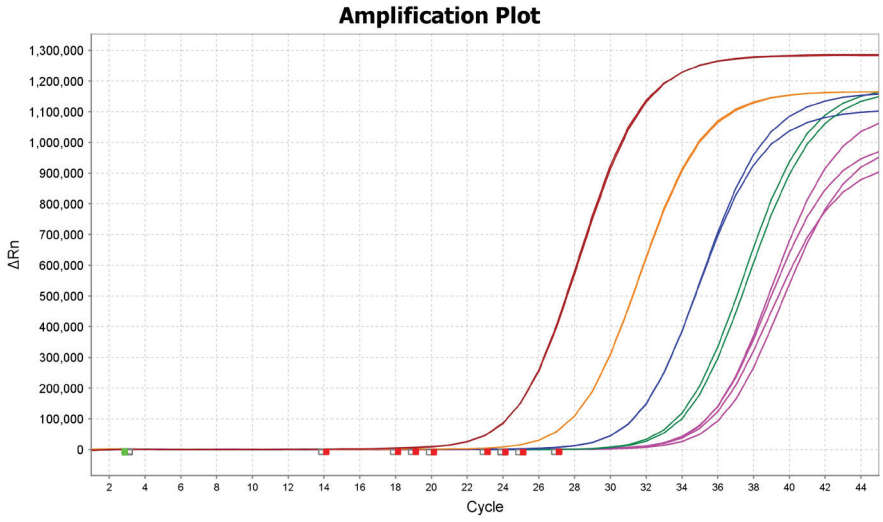


Figure: Consistent lot-to-lot performance upon switching out a critical component of the LaunchWorks 2X One-Step RT-qPCR Master Mix. Each color represents a distinct concentration of SARS CoV-2 E-gene template RNA, with a low copy (15 copies) of detection in pink, across the three lots of critical components tested.

Clinical Performance

Proven performance of the LaunchWorks 2X One-Step RT- qPCR Master Mix in direct comparison to the Thermo Fisher 4X TaqPath 1-Step Multiplex Master Mix. During this testing, the LaunchWorks master mix performed equal or better than the Thermo Fisher master mix.

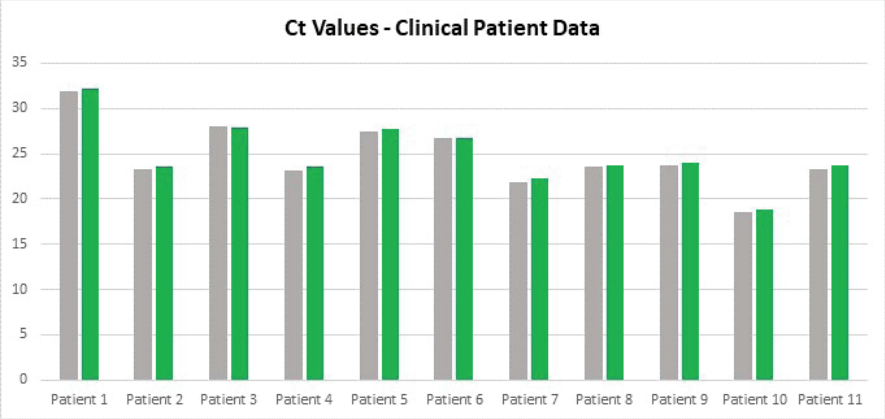


Figure: Clinical data across 10 randomly chosen patients comparing the Launchworks 2X One-Step RT-qPCR Master Mix (green) and Thermo Fisher 4X TaqPath 1-Step Multiplex Master Mix (grey).[1]

[1] Dr. Raymond Tellier and Dipchan Nancoo, Optilab MUHC, Glen Site, June 2020

Broad Instrument Compatibility

The LaunchWorks 2X One-Step RT-qPCR Master Mix has been shown to perform across a wide range of real-time PCR systems. These systems include (but are not limited to) Applied Biosystems, BioRad CFX and Roche Lightcycler PCR platforms.

High-Quality Enzymes

The master mix is made up of 4 highly specific and active enzymes:

1) Reverse Transcriptase (RT) 2) RNAse Inhibitor (RI) 3) Taq DNA Polymerase (Taq) 4) Uracil-DNA Glycosylase (UDG)

Specifications

Product Name	Launchworks 2X One-Step RT-qPCR Master Mix (No ROX)
Components	2X mix requiring no passive dye. 10 x 1 mL microtubes (100 reactions per tube)
Shelf Life	12 months
Storage Temp	-20°C or below
Assay Name/Specification (min release criteria)	Launchworks 2X One-Step RT-qPCR Master Mix (No ROX) is functionally tested in One-Step RTqPCR with SARS CoV-2 E-gene RNA template, resulting in a standard curve across a dynamic range of 6 orders of magnitude
Individual Product Component Testing	Quality Control Tests including activity testing protocols are performed for each component included in the Launchworks 2X One-Step RT-qPCR Master Mix (No ROX) and meet the designated specifications of RNAse, DNAse and Protease Free

For Research Use Only.