

**Product:** PrimeTime Gene Expression Master Mix, 5 mL

**Product number:** 1055772

**Kit batch number:** 0000473825

**Master mix lot number:** 0000469429

**Expiration date:** 2021-JUL-29

**Reference dye lot number:** 0000432388

**Expiration date:** 2021-NOV-04

Test	Specification	Results
<b>Functional testing*</b>		
Master mix is tested in singleplex and duplex assays using nucleic acid templates.		
Singleplex efficiency	90–110%	Pass
Singleplex R <sup>2</sup>	>0.990	Pass
Duplex efficiency	90–110%	Pass
Duplex R <sup>2</sup>	>0.990	Pass
C <sub>q</sub> difference singleplex vs. duplex	C <sub>q</sub> difference ≤0.50	Pass
Antibody-mediated <i>Taq</i> polymerase inactivation <sup>†</sup>	<5% increase in fluorescence over 10 min at 60°C	Pass
<b>Analytical testing</b>		
pH	8.40 ±0.10 pH Units	Pass
dNTP concentration	3.2 ±0.4 mM	Pass
RNase contamination <sup>‡</sup>	<1 ng/mL RNase A <12.5 ng/mL RNase T1 <70 ng/mL RNase I	Pass
DNase contamination <sup>§</sup>	<2 U/μL	Pass
ss exonuclease activity	90–110% normalized fluorescence at 24 hrs	Pass
ds exonuclease activity	90–110% normalized fluorescence at 24 hrs	Pass
<i>E. coli</i> DNA contamination	≤10 copies/μL	Pass

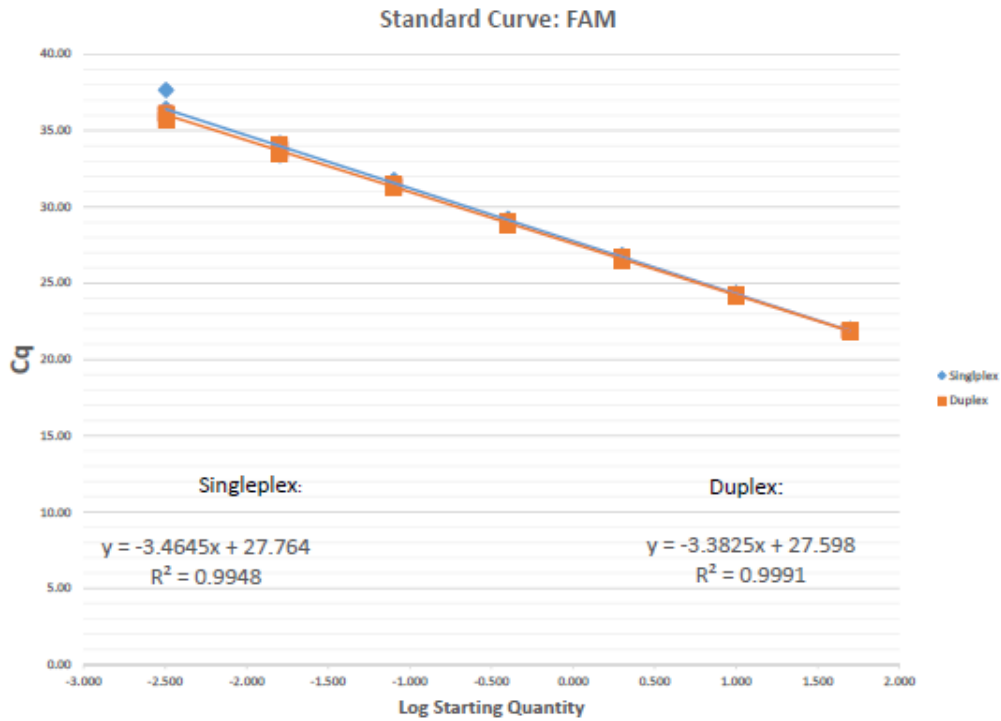
\* Functional testing: efficiency and R<sup>2</sup> determined through evaluation of serial dilutions of cDNA template (50–0.0032 ng cDNA per rxn) using PrimeTime Assays (one FAM-ZEN and one HEX-ZEN assay) in both singleplex and duplex reactions using cycling conditions of 3 min. 95°C, 45 x (5 sec. 95°C, 30 sec. 60°C).

† Polymerase inhibition: measured by incubation of FAM-labeled substrate with master mix for 10 min at 60°C.

‡ RNase contamination: measured using IDT RNaseAlert<sup>®</sup> reagents.

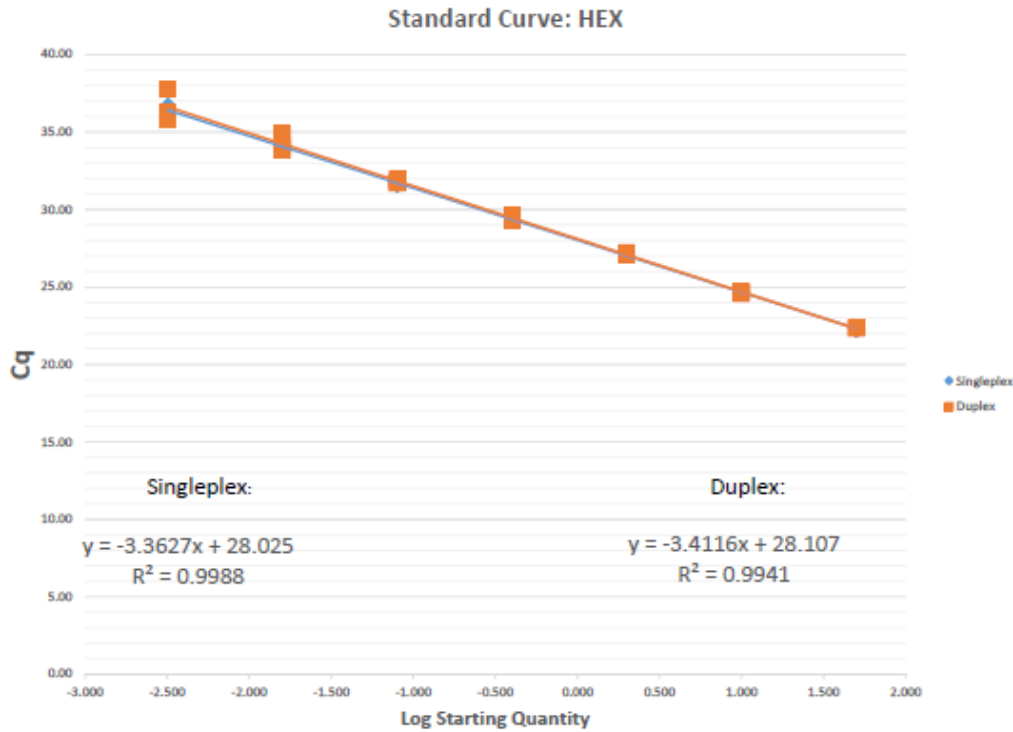
§ DNase contamination: measured using IDT DNaseAlert reagents.

## Standard curve (FAM-ZEN-based assay) – singleplex and duplex



CQC-415A REV04

## Standard curve (HEX-ZEN-based assay) – singleplex and duplex



CQC-415A REV04

**Storage:** Store PrimeTime Gene Expression Master Mix in a sealed container at  $-20^{\circ}\text{C}$ .  
Store Reference Dye in a sealed container at  $-20^{\circ}\text{C}$ .

**Verified by:** Ekaterina Carlson  
**Quality release date:** 2020-FEB-04

IDT verifies that the information contained herein is true and correct to the best of our knowledge. This document was produced electronically and is valid without signature.

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