

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

**Product number:** 1055772

**Kit batch number:** 0000448406

**Master mix lot number:** 0000446150

**Expiration date:** 2021-APR-24

**Reference dye lot number:** 0000423986

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

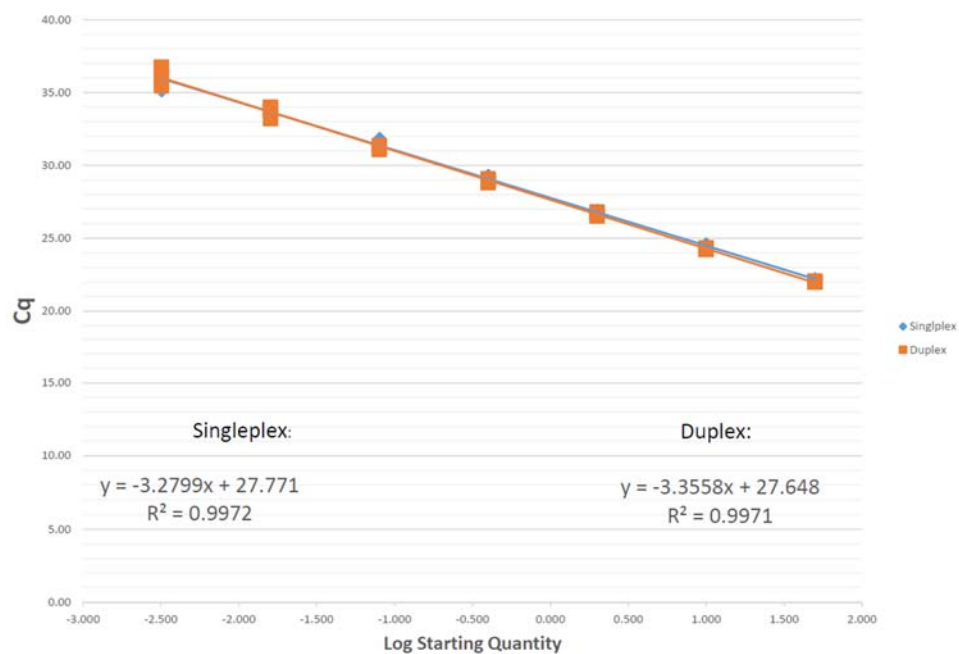
\* Functional testing: efficiency and R<sup>2</sup> determined through evaluation of serial dilutions of cDNA template (50–0.0032 ng cDNA per rxn) using PrimeTime Assays (one FAM-ZEN and one HEX-ZEN assay) in both singleplex and duplex reactions using cycling conditions of 3 min. 95°C, 45 x (5 sec. 95°C,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

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

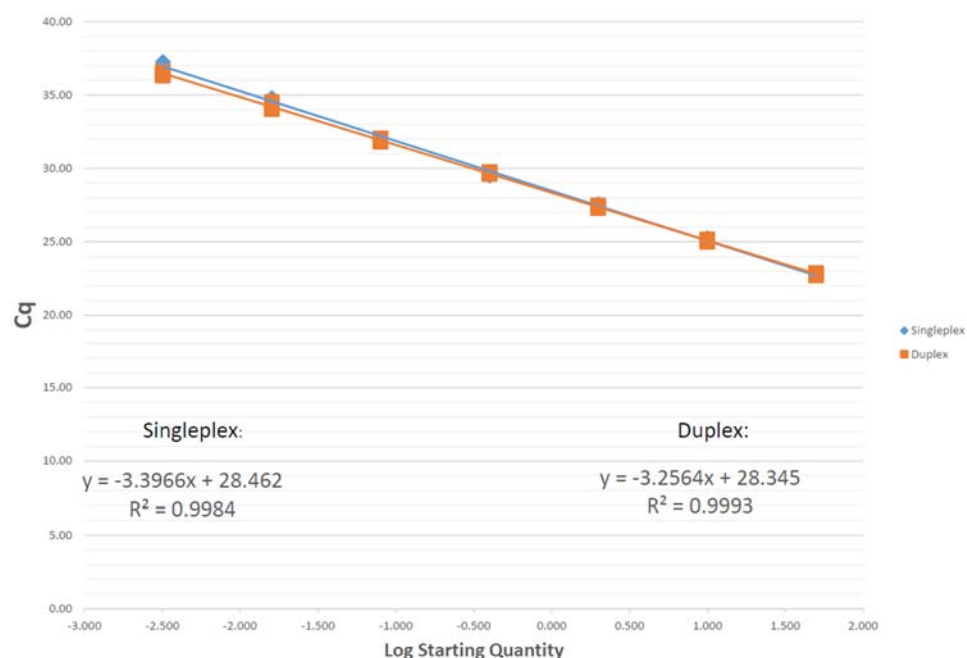
‡ RNase contamination: measured using IDT RNaseAlert® reagents.

§ DNase contamination: measured using IDT DNaseAlert reagents.

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



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



**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:** Natalie Walter

**Quality release date:** 2019-MAY-21

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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