

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

**Product number:** 1055772

**Kit batch number:** 0000435227

**Master mix lot number:** 0000434874

**Expiration date:** 2021-FEB-25

**Reference dye lot number:** 0000412888

**Expiration date:** 2021-MAR-28

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

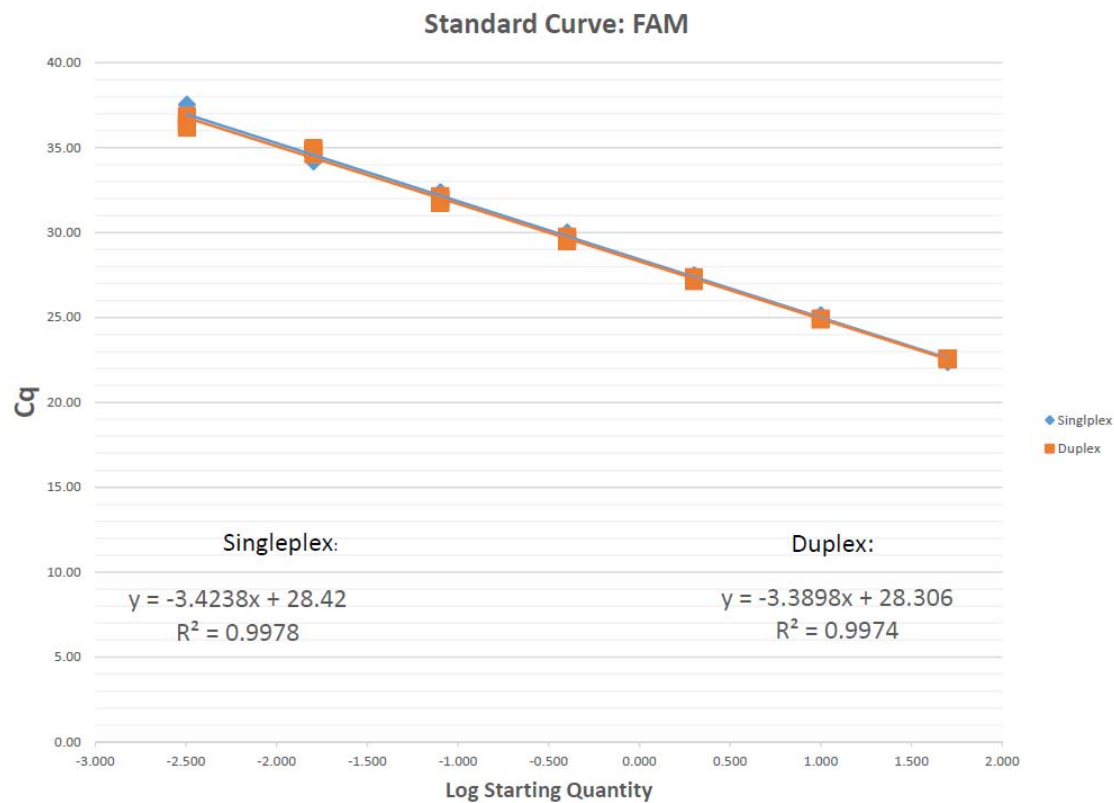
\* Functional testing: efficiency and R<sup>2</sup> determined through evaluation of serial dilutions of cDNA template (50–0.0032 ng cDNA per rxn) using PrimeTime Assays (one FAM-ZEN and one HEX-ZEN assay) in both singleplex and duplex reactions using cycling conditions of 3 min. 95°C, 45 x (5 sec. 95°C,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

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

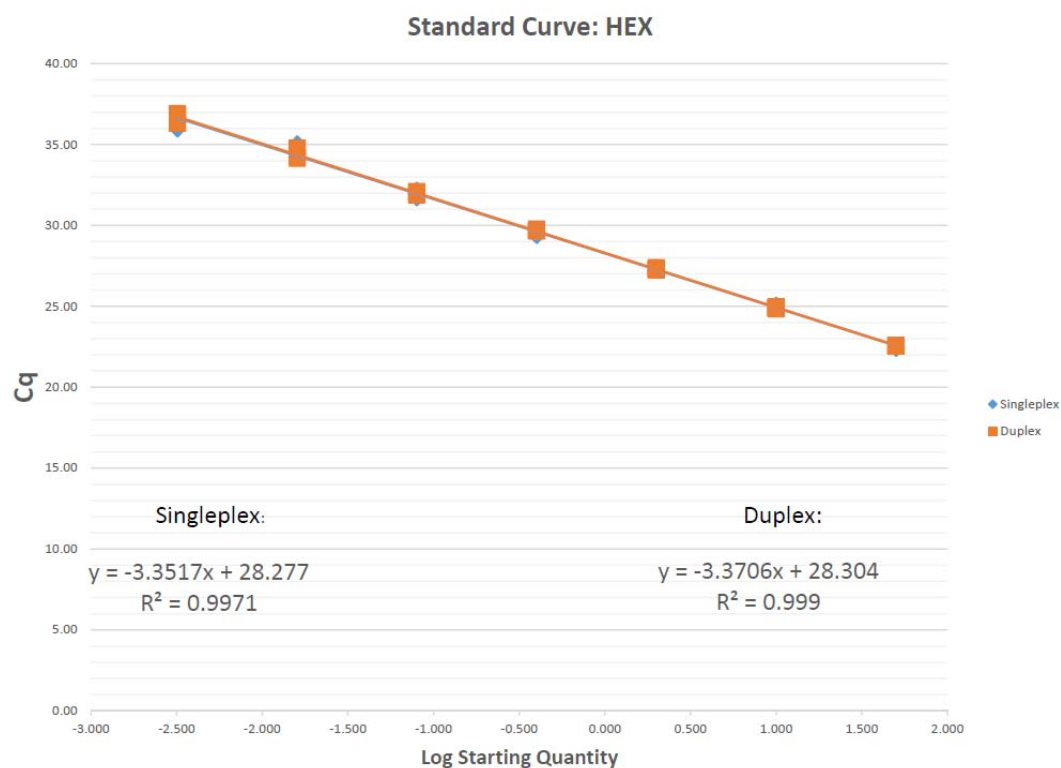
‡ RNase contamination: measured using IDT RNaseAlert® reagents.

§ 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:** Ekaterina Carlson

**Quality release date:** 2020-JAN-30

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.

PrimeTime, ZEN, DNaseAlert, and IDT are trademarks of Integrated DNA Technologies, Inc.  
RNaseAlert is a trademark of Life Technologies.