

Supplemental Data

Supplemental Table 1. Standard Curve Replicate Data for LSV-M and LSV-S Assays

LSV-M				
Replicate	Slope $\pm$ SEM	Y $\pm$ SEM	R <sup>2</sup>	E (%)
1	-3.456 $\pm$ 0.061	33.61 $\pm$ 0.254	0.998	94.7
2	-3.468 $\pm$ 0.083	34.3 $\pm$ 0.346	0.997	94.2
3	-3.528 $\pm$ 0.086	3.63 $\pm$ 0.086	0.996	92.1
LSV-S				
Replicate	Slope $\pm$ SEM	Y $\pm$ SEM	R <sup>2</sup>	E (%)
1	-3.565 $\pm$ 0.041	34.147 $\pm$ 0.172	0.997	90.8
2	-3.512 $\pm$ 0.029	33.919 $\pm$ 0.123	0.998	92.6
3	-3.543 $\pm$ 0.066	33.639 $\pm$ 0.276	0.992	91.5

Supplemental Table 2. Interassay and Intra-assay Variation of LSV-M and LSV-S Assays

LSV-M				
Copies/ $\mu$ L	Intra-assay variation		Interassay variation	
	Cq $\pm$ SD	CV (%)	Cq $\pm$ SD	CV (%)
1.7 x 10 <sup>7</sup>	9.02 $\pm$ 0.189	2.10	8.92 $\pm$ 0.386	4.32
	9.24 $\pm$ 0.206	2.22		
	8.49 $\pm$ 0.223	2.62		
1.7 x 10 <sup>6</sup>	13.5 $\pm$ 0.127	0.946	13.6 $\pm$ 0.633	4.65
	14.3 $\pm$ 0.036	0.252		
	13.1 $\pm$ 0.610	4.67		
1.7 x 10 <sup>5</sup>	16.4 $\pm$ 0.122	0.746	16.6 $\pm$ 0.544	3.28
	17.2 $\pm$ 0.158	0.922		
	16.1 $\pm$ 0.414	2.57		
1.7 x 10 <sup>4</sup>	19.9 $\pm$ 0.121	0.606	20.2 $\pm$ 0.520	2.58
	20.8 $\pm$ 0.320	1.54		
	19.9 $\pm$ 0.672	3.38		
1.7 x 10 <sup>3</sup>	22.9 $\pm$ 0.036	0.158	23.0 $\pm$ 0.528	2.30
	23.5 $\pm$ 0.081	0.344		
	22.5 $\pm$ 0.488	2.17		
1.7 x 10 <sup>2</sup>	26.6 $\pm$ 0.135	0.508	26.8 $\pm$ 0.346	1.29
	27.2 $\pm$ 0.351	1.29		
	26.6 $\pm$ 0.593	2.23		
1.7 x 10 <sup>1</sup>	29.8 $\pm$ 0.055	0.185	30.0 $\pm$ 0.591	1.97
	30.6 $\pm$ 0.190	0.621		
	29.5 $\pm$ 0.326	1.11		
1.7 x 10 <sup>0</sup>	34.0 $\pm$ 0.229	0.675	34.2 $\pm$ 0.260	0.759
	34.5 $\pm$ 0.484	1.40		
	34.2 $\pm$ 0.554	1.62		
Average CV (%) $\pm$ SD		1.80 $\pm$ 1.93	2.64 $\pm$ 1.37	

LSV-S				
Copies/ $\mu$ L	Intra-assay variation		Interassay variation	
	Cq $\pm$ SD	CV (%)	Cq $\pm$ SD	CV (%)
$1.8 \times 10^7$	9.14 $\pm$ 0.211	2.31	8.84 $\pm$ 0.549	6.21
	9.22 $\pm$ 0.040	0.434		
	8.21 $\pm$ 0.460	5.60		
$1.8 \times 10^6$	13.2 $\pm$ 0.070	0.532	12.9 $\pm$ 0.493	3.83
	13.2 $\pm$ 0.151	1.15		
	12.3 $\pm$ 0.696	5.64		
$1.8 \times 10^5$	16.3 $\pm$ 0.234	1.44	16.3 $\pm$ 0.100	0.613
	16.3 $\pm$ 0.177	1.08		
	16.4 $\pm$ 0.159	0.969		
$1.8 \times 10^4$	19.8 $\pm$ 0.204	1.03	20.0 $\pm$ 0.289	1.45
	20.0 $\pm$ 0.170	0.851		
	20.3 $\pm$ 0.282	1.39		
$1.8 \times 10^3$	23.1 $\pm$ 0.096	0.417	23.0 $\pm$ 0.100	0.435
	23.1 $\pm$ 0.129	0.559		
	22.9 $\pm$ 0.177	0.771		
$1.8 \times 10^2$	26.8 $\pm$ 0.101	0.377	26.7 $\pm$ 0.115	0.433
	26.7 $\pm$ 0.106	0.396		
	26.6 $\pm$ 0.454	1.71		
$1.8 \times 10^1$	30.3 $\pm$ 0.163	0.536	29.8 $\pm$ 0.503	1.69
	30.1 $\pm$ 0.297	0.987		
	29.3 $\pm$ 0.188	0.641		
$1.8 \times 10^0$	34.7 $\pm$ 1.08	3.12	34.2 $\pm$ 0.416	1.22
	34.4 $\pm$ 0.424	1.23		
	33.9 $\pm$ 1.36	4.01		
Average CV (%) $\pm$ SD		2.00 $\pm$ 3.32	1.99 $\pm$ 2.03	

Supplemental Table 3. Analytical Detection Limit of LSV-M and LSV-S Assays

LSV-M					
Concentration (copies/ $\mu$ L)	Replicate 1	Replicate 2	Replicate 3	Replicate 4	Detection Rate%
$10^2$	10/10	10/10	N/A	N/A	100
$10^1$	10/10	10/10	10/10	10/10	100
$10^0$	10/10	10/10	10/10	10/10	100
$10^{-1}$	6/10	6/10	6/10	4/10	55
$10^{-2}$	N/A	N/A	0/10	1/10	5
LSV-S					
Concentration (copies/ $\mu$ L)	Replicate 1	Replicate 2	Replicate 3	Replicate 4	Detection Rate%
$10^2$	10/10	10/10	N/A	N/A	100
$10^1$	10/10	10/10	10/10	10/10	100
$10^0$	10/10	10/10	10/10	10/10	100
$10^{-1}$	5/10	4/10	6/10	2/10	42.5
$10^{-2}$	N/A	N/A	1/10	1/10	10