Table 1S. | Primers and probes for 11 pneumonia pathogens.

Name	Target gene	Sequence	bp
Acinetobacter baumannii **(Aba)**	**adeS**	**F:** *TCACTTGCTTCCGTTGTCCCAATTAACTTCTTAGCCGAAGCAGC* **R:** *GGTTTCGGATGTTACAGGCATAGGCGTTCTTAACTCATGTGCGAT* **P1:** *NH_2-TTTTTTTTTTTTTTTCGCAAGTTTGGAATGCAGCCATCG* **P2:** *NH_2-TTTTTTTTTTTTTTTCCGCCGAAATGTCGGAGCTTTTAT*	**237**
Chlamydia pneumonia **(Con)**	**PstI**	**F:** *TCACTTGCTTCCGTTGTCCGCTTCGGGAACGATTTTGGAAACA* **R:** *GGTTTCGGATGTTACAGGCACTGAAGTTGAGCATATTCGTGAGG* **P1:** *NH_2-TTTTTTTTTTTTTTTCTTTATTTCCGTGTCGTCCAGCCA* **P2:** *NH_2-TTTTTTTTTTTTTTTCGTAGACTTTAACCTTGGCGAATG*	**200**
Escherichia coli **(Eco)**	**phoA**	**F:** *TCACTTGCTTCCGTTGTCCACTGTCATTACGTTGCGGATTAGGC* **R:** *GGTTTCGGATGTTACAGGCAGTTATCAGTTGGTGAGTGATGCTGC* **P1:** *NH_2-TTTTTTTTTTTTTTTCTGATTCGCTTCCGTCACCGCATT* **P2:** *NH_2-TTTTTTTTTTTTTTTGTCAGCAAACAGGCCAGGCAGGGG*	**227**
Mycoplasma pneumonia **(Mpn)**	**P1**	**F:** *TCACTTGCTTCCGTTGTCCGGCACGAGTAAAACGGCAAACCGAT* **R:** *GGTTTCGGATGTTACAGGCAACCAAACCGGGCAGATCACCTTTAA* **P1:** *NH_2-TTTTTTTTTTTTTTTTTTGACCTCGTTTCACTGTTGGGG* **P2:** *NH_2-TTTTTTTTTTTTTTTATAAGGATTGGAGGGGTCTTGCGC*	**190**
Hemophilus Influenzae **(Hin)**	**ompP6**	**F:** *TCACTTGCTTCCGTTGTCCTAGCTGGTAAAGGTGTTGATGCTGG* **R:** *GGTTTCGGATGTTACAGGCAATTAGTACGCTAACACTGCACGACG* **P1:** *NH_2-TTTTTTTTTTTTTTTTAGGCACAGTATCTTACGGTGAAG* **P2:** *NH_2-TTTTTTTTTTTTTTTCATGATGAAGCTGCATATTCTAAA*	**165**
Klebsiella pneumoniae **(Kpn)**	**glnL**	**F:** *TCACTTGCTTCCGTTGTCCTGAATATCGCGGGCAAGATAGGAGT* **R:** *GGTTTCGGATGTTACAGGCACGCCACTATCGACAGTCAGTTCG* **P1:** *NH_2-TTTTTTTTTTTTTTTTATCGCTGTGGCTATAGGTGCTGTA* **P2:** *NH_2-TTTTTTTTTTTTTTTCAGGCGCCATGGTCCCAGATTCAG*	**183**
Legionella pneumophila **(Lpn)**	**mip**	**F:** *TCACTTGCTTCCGTTGTCCCAAACCACTTGGCAATACAACAACG* **R:** *GGTTTCGGATGTTACAGGCAAAGACGCTATGAGTGGCGCTCAATT* **P1:** *NH_2-TTTTTTTTTTTTTTTGGCTTCCCCTTTTACTTTATTTTC* **P2:** *NH_2-TTTTTTTTTTTTTTTCGTCTTTCATTTGCTGTTCGGTTA*	**236**
Pseudomonas aeruginosa **(Pae)**	**oprI**	**F:** *TCACTTGCTTCCGTTGTCCACATTTCCATAACAGCAATCTCCC* **R:** *GGTTTCGGATGTTACAGGCATTGAACAAACGACACTCCAACTAC* **P1:** *NH_2-TTTTTTTTTTTTTTTCGGCTACATACTACCCATTACTTG* **P2:** *NH_2-TTTTTTTTTTTTTTTTAAGTAAACTGACCAAGCGCAAGC*	**191**
Staphylococcus aureus **(Sau)**	**femA**	**F:** *TCACTTGCTTCCGTTGTCCAGTGATAACGAATTTGTAGCACAGG* **R:** *GGTTTCGGATGTTACAGGCAAATCATGATGGCGAGATTACAGGTA* **P1:** *NH_2-TTTTTTTTTTTTTTTAAATCCTTTATGGAATCCAGTATG* **P2:** *NH_2-TTTTTTTTTTTTTTTTGTTCAAATCCTAAGTTACTCATT*	**166**
Stenortrophomonas maltophilia **(Sma)**	**StmPr**	**F:** *TCACTTGCTTCCGTTGTCCTACACGTGCCGTCCGTACCTGA* **R:** *GGTTTCGGATGTTACAGGCACCATGGAGAGGGTCTTGGGCTC* **P1:** *NH_2-TTTTTTTTTTTTTTTCACCTTCTCGGGCGTGACCCTCAA* **P2:** *NH_2-TTTTTTTTTTTTTTTACGTACGGGTGAAGGCCTACAGCA*	**191**
Streptococcus pneumoniae **(Spn)**	**lytA**	**F:** *TCACTTGCTTCCGTTGTCCGGTTTGAGGTAGTACCAGCCTGTTC* **R:** *GGTTTCGGATGTTACAGGCATGGAGGAAGCACACAGACGGCAACT* **P1:** *NH_2-TTTTTTTTTTTTTTTGTCTGCGGACTGGACAAAGGCGTT* **P2:** *NH_2-TTTTTTTTTTTTTTTTTACCGTCAAGATAATACCAAGT*	**272**

Table 2S. Specific primers with 5' common sequences for 116-plex PCR.

ID	ORF	Forward primer	Reverse Primer	bp
1	Rv0645c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGCCAAGCTGAGACCATATTACGAA	GGGGACCACTTTGTACAAGAAAGCTGGGTACTACTTGGTCATGGTGAACTGGG	922
2	Rv2323c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGAAAATACGCAACGACCATCGTTT	GGGGACCACTTTGTACAAGAAAGCTGGGTATCATGGGTGTATCTCCAGCGT	970
3	Rv1373	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAAATTCAGAACACCCGATGACCG	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAGTTGGCCGGGTCGTAT	1042
4	Rv0799c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGCTGTGCCTGCTGTCTCTC	GGGGACCACTTTGTACAAGAAAGCTGGGTATCATCGGGGGCTTCCTTTCA	1069
5	Rv0363c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTACCTATCGCAACGCCCGAG	GGGGACCACTTTGTACAAGAAAGCTGGGTATTAGTGGGTTAGGGACTTTCCGG	1096
6	Rv0288	GGGGACAAGTTTGTACAAAAAAGCAGGCTTATCGCAAATCATGTACAACTACCCC	GGGGACCACTTTGTACAAGAAAGCTGGGTACTAGCCGCCCCATTTGGC	352
7	Rv2556c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTACTGGATGTGGACACCGCG	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAGCCTTCCACAAAGCTCAATC	451
8	Rv2651c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAAGTAGCATCCTTTTCCGCACG	GGGGACCACTTTGTACAAGAAAGCTGGGTATTACCAATCCATCAGGGCTAACCT	595
9	Rv1777	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAAGACGTTCGCCGAAAGGC	GGGGACCACTTTGTACAAGAAAGCTGGGTACTATTGTACAGCTAGCTCTAGCCG	1366
10	Rv1182	GGGGACAAGTTTGTACAAAAAAGCAGGCTTATTGCGGGTTGGACCGTTG	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAGGCAACATTCTGCTGCTG	1480
11	Rv0856	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGAGGCGCTGGCAGATGTC	GGGGACCACTTTGTACAAGAAAGCTGGGTATCACGATTTCGCGTTTCCTTGA	466
12	Rv0582	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAATCATCGACACGAGTGCGC	GGGGACCACTTTGTACAAGAAAGCTGGGTATTACGGAATGACGGTGAAGCG	469
13	Rv1780	GGGGACAAGTTTGTACAAAAAAGCAGGCTTACAAAATCACGACTACGTTACCTACGA	GGGGACCACTTTGTACAAGAAAGCTGGGTACTACGGGCCGCTCCAGGTA	625
14	Rv2295	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGACCAGTCGGCCAACCATG	GGGGACCACTTTGTACAAGAAAGCTGGGTATTAAGCGAAATCGGCGTAGGC	700
15	Rv2624c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTATCTGGGAGAGGAGAGCCGA	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAGCGGCGAACGACAAG	880
16	Rv2938	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAATCACGACGACAAGTCAGGAAATC	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAATGCGTGCTGGCCCG	892
17	Rv1786	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAAAAGTCCGTCTCGATCCATCGA	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAGTCCGCGTCGTCCTC	265
18	Rv3462c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGCCAAGAAGGACGGTGCC	GGGGACCACTTTGTACAAGAAAGCTGGGTACTACTTGTACCGGTACACGATGC	283
19	Rv3874	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGCAGAGATGAAGACCGATGCC	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAGAAGCCCATTTGCGAGG	364
20	Rv0313	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGGCGACTATGGTCCGTTTGG	GGGGACCACTTTGTACAAGAAAGCTGGGTATTACTGGGCCTCGTCCACC	448
21	Rv0677c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAATTGGAACTCTCAAGCGTGCC	GGGGACCACTTTGTACAAGAAAGCTGGGTATCATGCGGATTTCACAAAGCAGTA	490
22	Rv0637	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGCGCTCAAGACCGATATCCG	GGGGACCACTTTGTACAAGAAAGCTGGGTATTACGCGGTCCTGATGACCT	562
23	Rv3278c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAAGCTATCCGGAGAATGTCCTGG	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAGCTGGGCGACTCGTC	580
24	Rv1749c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTATTGCGTGCGGTCAATGAGATT	GGGGACCACTTTGTACAAGAAAGCTGGGTACTAAGGCTGACCTTTCGGCAC	619
25	Rv2986c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAAACAAAGCAGAGCTCATTGACGT	GGGGACCACTTTGTACAAGAAAGCTGGGTACTATTTGCGACCCCGCCG	706
26	Rv3005c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAACCAGTTCGAATGACTCACATTGG	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAGGCCAGCGGATTTGC	901
27	Rv2605c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTATCGATCGAAGAGATCCTTGATCTTGA	GGGGACCACTTTGTACAAGAAAGCTGGGTATCACTGCCCCACCGACCG	907
28	Rv3759c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAAGGATGCTGCGACGCCTA	GGGGACCACTTTGTACAAGAAAGCTGGGTACTACTGCCGCACTGGATGATC	1009
29	Rv3524	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGTGAAGTTCACACCCGATAGCC	GGGGACCACTTTGTACAAGAAAGCTGGGTATTAAGCCGTCGGCAGTTTTAACA	1093
30	Rv1560	GGGGACAAGTTTGTACAAAAAAGCAGGCTTATATCGTTGGTGTATGTCGCGC	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAGTCTGGGCGATCGCTT	280
31	Rv0616c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTACGTATCCCGGGCAATCGC	GGGGACCACTTTGTACAAGAAAGCTGGGTATTAGATGAACGAAGAGGGCCTGT	328
32	Rv3904c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGATCCGACCGTGTTGGCTG	GGGGACCACTTTGTACAAGAAAGCTGGGTATCACGACCACATACCCAAATTCG	334
33	Rv0140	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAAGCAACCGGATTGTGTTAGAACC	GGGGACCACTTTGTACAAGAAAGCTGGGTACTACCCCGGGAAGATGCTGAT	442
34	Rv1139c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTATACTACCTGCTGATCCTGGCG	GGGGACCACTTTGTACAAGAAAGCTGGGTATCATATGTAGCCCAGAACGGAGTT	562
35	Rv1506c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTACGCATTGTCAATGCGGCG	GGGGACCACTTTGTACAAGAAAGCTGGGTATCATGACGCCTTCCTAACCAGAA	562
36	Rv2080	GGGGACAAGTTTGTACAAAAAAGCAGGCTTACCCCACTCCACCGCTGAT	GGGGACCACTTTGTACAAGAAAGCTGGGTATCATGGCTGAACGAGTTGGTTG	625
37	Rv0394c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAACTGAGCCCAGACCTGTCTTC	GGGGACCACTTTGTACAAGAAAGCTGGGTATCATCTCGACGTGGACGGG	781
38	Rv0577	GGGGACAAGTTTGTACAAAAAAGCAGGCTTACCCAAGAGAAGCGAATACAGGC	GGGGACCACTTTGTACAAGAAAGCTGGGTACTATTGCTGCGGTGCGGG	847
39	Rv3213c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAACTGATACCCGGGTGCTAGC	GGGGACCACTTTGTACAAGAAAGCTGGGTACTACAGGTCCACCGTGAAGGT	862
40	Rv1433	GGGGACAAGTTTGTACAAAAAAGCAGGCTTACGGGCGGTTTTTGGGTGT	GGGGACCACTTTGTACAAGAAAGCTGGGTACTATTCCTGCACAATGACCGGG	877
41	Rv1061	GGGGACAAGTTTGTACAAAAAAGCAGGCTTATGCCGACTCTTTGGCTTGC	GGGGACCACTTTGTACAAGAAAGCTGGGTATCACGCCGACGTGTGTTG	925
42	Rv3397c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAACCGAGATCGAACAGGCGTAT	GGGGACCACTTTGTACAAGAAAGCTGGGTACTAGTGGCTGGGGTGACTCC	970
43	Rv3784	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGAAATACTTGTCACCGGGGGC	GGGGACCACTTTGTACAAGAAAGCTGGGTATTAGAGAACGCTGGAACCGCTA	1042
44	Rv0170	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAAAAATCACTGGAACCGTCGTCAAA	GGGGACCACTTTGTACAAGAAAGCTGGGTATCATTGCGGCGTGCACCTA	1102
45	Rv2830c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAACCGCTACGGAGGTGAAGG	GGGGACCACTTTGTACAAGAAAGCTGGGTATCATGAAACGTTCCACGAAACCC	277
46	Rv0150c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTACTGACGTTGCCCGACGAC	GGGGACCACTTTGTACAAGAAAGCTGGGTACTAAGCGCATGCTCGCGATT	349
47	Rv0968	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGTGTGGCATGGATTCCTAGCG	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAGTGGTCATGACCGTCGT	358
48	Rv1290A	GGGGACAAGTTTGTACAAAAAAGCAGGCTTATTGGCGCTGCATGGGTTATC	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAGCCACTCACGTCCGG	376
49	Rv2481c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGCGTTGCGTAGACGCCAT	GGGGACCACTTTGTACAAGAAAGCTGGGTACTAGTGAGCTATAGACGACTTCGT	385
50	Rv0967	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAAGCAAGGAATTGACCGCAAAGAA	GGGGACCACTTTGTACAAGAAAGCTGGGTATCACATGTTGCTGGCATCCG	421
51	Rv3687c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTATCAGCTCCCGACTCGATCAC	GGGGACCACTTTGTACAAGAAAGCTGGGTATTACCGGTCGATCCTGCCG	430
52	Rv2537c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAAGCGAACTGATCGTGAACGTG	GGGGACCACTTTGTACAAGAAAGCTGGGTATCACGTCCCGACATGCTCA	505
53	Rv2256c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGAACCGAAGGAGCAGCAGATG	GGGGACCACTTTGTACAAGAAAGCTGGGTATTAGCCAACTCCCCGACTCAG	595
54	Rv2322c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAACAAATCTCGCGGATGCCAC	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAGCACGTTGTGCTCGAC	727
55	Rv0200	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAAGAAATGCTTGGCGGCTGG	GGGGACCACTTTGTACAAGAAAGCTGGGTATTAGCGAGCGTTGATCGGC	751
56	Rv0963c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTACTGCAACGAGAACTCACCCG	GGGGACCACTTTGTACAAGAAAGCTGGGTATTATGCTCGCTCGTGAAGTTGG	862
57	Rv1463	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAACCATTTTGGAAATTAAGGACCTGCA	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAGGCTCCGGTTGGCGC	862
58	Rv3500c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAAGCTACGACGTCACTATCCGG	GGGGACCACTTTGTACAAGAAAGCTGGGTATTACCCCGAGAGGTTGAAGTTACC	904
59	Rv3783	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAACATTCATGGATGCTCAAGCTAGC	GGGGACCACTTTGTACAAGAAAGCTGGGTACTACACCCAGTAGGGCACCC	904
60	Rv1096	GGGGACAAGTTTGTACAAAAAAGCAGGCTTACCGAAGCGACCCGACAAC	GGGGACCACTTTGTACAAGAAAGCTGGGTATTACGCACCGTTATTTGGCCC	937
61	Rv0567	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGAGTTGAGCCCGGATCGGA	GGGGACCACTTTGTACAAGAAAGCTGGGTACTATTTATAGGCCACCGCCGC	1081
62	Rv3679	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGTGGCAACCACATCTAGCGG	GGGGACCACTTTGTACAAGAAAGCTGGGTATCATCGAACCCCCTGCTGG	1084
63	Rv3208A	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGAGGTCAAGATCGGTATCACGGA	GGGGACCACTTTGTACAAGAAAGCTGGGTATTACCCGCTCGTAGCAACCTT	334
64	Rv3418c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGCGAAGGTGAACATCAAGCCA	GGGGACCACTTTGTACAAGAAAGCTGGGTACTACTTGGAAACGACGGCCAG	364
65	Rv2274c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTATCTATCGCCCGATCGGCC	GGGGACCACTTTGTACAAGAAAGCTGGGTACTACTCGCCAAATGCGATCGT	379
66	Rv2658c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGCCGATGCGGTTAAGTACGTAG	GGGGACCACTTTGTACAAGAAAGCTGGGTATTACCCGCCTAGCTGGCTC	424

67	Rv2185c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGCGGACAAGACGACACAGAC	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAGCCCTCGACTCGTTTCTT	496
68	Rv1156	GGGGACAAGTTTGTACAAAAAAGCAGGCTTACCAAATCTGCAGCTTGTCCAAGA	GGGGACCACTTTGTACAAGAAAGCTGGGTATCACGTTGGCGCCTTTCC	649
69	Rv2460c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAAATTCCCAAAATTCTCAGATCCAGCC	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAGGCGGTTTGCGCGGA	706
70	Rv3223c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGCCGACATCGATGGTGTAACC	GGGGACCACTTTGTACAAGAAAGCTGGGTATCATGACGACACCCCCTCG	712
71	Rv1980c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTACGCATCAAGATCTTCATGCTGGT	GGGGACCACTTTGTACAAGAAAGCTGGGTACTAGGCCAGCATCGAGTCGA	748
72	Rv0588	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGTGGAGTCTTCAACGGCATCAG	GGGGACCACTTTGTACAAGAAAGCTGGGTACTACACCGTGAGATTGAAGTTCGG	949
73	Rv3806c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAAGTGAAGATGTGGTGACTCAACCT	GGGGACCACTTTGTACAAGAAAGCTGGGTACTAGCCGAAGGCAACAGCG	970
74	Rv2964	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGGCAAAGGGAGCATGACCG	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAGAAGACGATGGTCTGGTTGT	994
75	Rv2077c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTACTGGCCACCCTGTCCCAA	GGGGACCACTTTGTACAAGAAAGCTGGGTACTACTTGGTGGCACAGTTGACC	1033
76	Rv3250c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAAACGACTACAAACTGTTCCGCTG	GGGGACCACTTTGTACAAGAAAGCTGGGTATCACGAGCGAGCCACCTC	244
77	Rv2076c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGTTGTCTGCCTCATCGGCG	GGGGACCACTTTGTACAAGAAAGCTGGGTATCACCGGTCCTGGTCAGAAC	313
78	Rv2104c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTACGGACGACTGTCACATTGGATG	GGGGACCACTTTGTACAAGAAAGCTGGGTACTATGACCCGCGGCGTTG	316
79	Rv2653c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAACCCACAAGCGCACTAAACG	GGGGACCACTTTGTACAAGAAAGCTGGGTATCACTGTTTGCTGTCGGGTTC	385
80	Rv3078	GGGGACAAGTTTGTACAAAAAAGCAGGCTTACAGAAGCTGCTATTCACCATCGG	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAGAGGCCAATGATGACGATGA	463
81	Rv2602	GGGGACAAGTTTGTACAAAAAAGCAGGCTTACTGCTCTGTGACACCAACATCTG	GGGGACCACTTTGTACAAGAAAGCTGGGTATCACTTGGCCAGGAGCCG	502
82	Rv3291c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAAACGAGGCGCTCGACGATA	GGGGACCACTTTGTACAAGAAAGCTGGGTATTATGGTATATGCTGCCTATCGCT	514
83	Rv0566c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGCGGACTCATCGTTCGACATC	GGGGACCACTTTGTACAAGAAAGCTGGGTACTAGCGGTAGTTCACAAACTGCAA	553
84	Rv0052	GGGGACAAGTTTGTACAAAAAAGCAGGCTTACCGTCGTTCGACGTCGTG	GGGGACCACTTTGTACAAGAAAGCTGGGTATCACAAACGATGCTGATAGAACTC	625
85	Rv3781	GGGGACAAGTTTGTACAAAAAAGCAGGCTTATCGGATCCGCACCATCCC	GGGGACCACTTTGTACAAGAAAGCTGGGTATCATCCCTGGACGTTCTGTCTG	883
86	Rv0801	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGCACTCAAGGTAGAGATGGTCACT	GGGGACCACTTTGTACAAGAAAGCTGGGTATTATTGACCCGCCACGCAAAAA	409
87	Rv1871c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAAATGCAGCTATGAATCTCAAGCGG	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAGTCCAAATCCACCCGGATG	451
88	Rv2297	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGCGATGGAGATGGCGATGATG	GGGGACCACTTTGTACAAGAAAGCTGGGTATCATCCCCGGTGCTTTGGT	514
89	Rv2036	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAATCGCGGCAGACGACGATA	GGGGACCACTTTGTACAAGAAAGCTGGGTATTAACCGAGTCGTCCGGCTAG	703
90	Rv2636	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAATAAACCCGACCCGGGCC	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAAGATAGGAAGCGTTTGCGTAA	739
91	Rv2002	GGGGACAAGTTTGTACAAAAAAGCAGGCTTATCTGGACGGTTGATAGGAAAGGTC	GGGGACCACTTTGTACAAGAAAGCTGGGTATTACGTCACCCATTCCGGCT	844
92	Rv2744c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGCCAATCCGTTCGTTAAAGCCT	GGGGACCACTTTGTACAAGAAAGCTGGGTACTACTGACCGTAGGGCTGCTC	874
93	Rv1882c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAAAAGCGATATTCATCACCGGCG	GGGGACCACTTTGTACAAGAAAGCTGGGTATTACTTCCGTTTTGGCTCCAACG	895
94	Rv3232c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGATATACCATCCGTTGATGTGAGCAC	GGGGACCACTTTGTACAAGAAAGCTGGGTATCACCGGGCGATCAACGT	949
95	Rv3206c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTATCGACATCCTTGCCGCCA	GGGGACCACTTTGTACAAGAAAGCTGGGTACTAGTACATCACCATGTCGGGCT	1240
96	Rv0741	GGGGACAAGTTTGTACAAAAAAGCAGGCTTATTTTCGGTCAAAGGCGAAGAAGG	GGGGACCACTTTGTACAAGAAAGCTGGGTACTACTGACTGATCCGTGGGTGTT	376
97	Rv1103c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTATACCTACCCTGGGGGGTCG	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAGTCGATGTCGAGGGCG	382
98	Rv1670	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAATTCGTGCTGTGTGGAATGGAAC	GGGGACCACTTTGTACAAGAAAGCTGGGTACTATTTGCCGAGCCACGCC	409
99	Rv2199c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTACATATCGAAGCCCGACTGTTTGAG	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAGTGCTTCTCAGGACCGAC	481
100	Rv3249c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAAGCACTCCAAGCGCTACTGT	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAGGGGACATTGATCACACCG	697
101	Rv1686c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAATCTTGCTGGTACCCATCCTGATC	GGGGACCACTTTGTACAAGAAAGCTGGGTACTATGACGTCCGTCGCCGCAG	742
102	Rv0852	GGGGACAAGTTTGTACAAAAAAGCAGGCTTATTCACAATCGGTTACAGCTGCG	GGGGACCACTTTGTACAAGAAAGCTGGGTATCACTGCAGCGCCTCGAT	898
103	Rv3522	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAAGCGTTCGCGATATTGCCG	GGGGACCACTTTGTACAAGAAAGCTGGGTACTATCCCCGTCCTTCCATGACC	1126
104	Rv0666	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAACACCGAGGACTGATGAAGGTG	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAATCCGCCGTGCAACG	235
105	Rv2412	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGCCAACATCAAGTCGCAGCA	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAGAGCTTGTTGAGCGCCT	322
106	Rv2122c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTACAACAATCGCTGGCCGTGAA	GGGGACCACTTTGTACAAGAAAGCTGGGTATCACAGCTTTCGATAGACGTCGT	343
107	Rv2007c	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAACCTATGTGATCGGTAGTGAGTGC	GGGGACCACTTTGTACAAGAAAGCTGGGTACTAAGGGCACTCCACCGGG	406
108	Rv0395	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGATTGGATGCCGCTCGGC	GGGGACCACTTTGTACAAGAAAGCTGGGTACTAGCTCATGCTCAGGCATAGACG	466
109	Rv3108	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAACACCCAATGCGGCGAGTA	GGGGACCACTTTGTACAAGAAAGCTGGGTATTAGGGCGGAATCCGACCAC	502
110	Rv3348	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAACTGCCGAGAATCCAGGACG	GGGGACCACTTTGTACAAGAAAGCTGGGTACTACCGCGCCAACGACATC	553
111	Rv3841	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAACAGAATACGAAGGGCCTAAGACAAA	GGGGACCACTTTGTACAAGAAAGCTGGGTACTAGAGGCGGCCCCCGGC	607
112	Rv0177	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAAGCCCCCGTCGTAAGTTTGAA	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAGATCACCGGAAGCAGACTG	616
113	Rv2016	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAACGGAACTCGGCGACAAGT	GGGGACCACTTTGTACAAGAAAGCTGGGTATCATCGTTCCCCCGATGCTC	637
114	Rv1556	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAGTAGGCGCTGTGACCCAGAT	GGGGACCACTTTGTACAAGAAAGCTGGGTATCAACCGGTGGATCGGGTG	670
115	Rv0351	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAACGGACGGAAATCAAAAGCCG	GGGGACCACTTTGTACAAGAAAGCTGGGTATTAACTGCCCGACGGTTCTGAT	769
116	Rv1368	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAAATGGCTTGATCTCACAAGCGTG	GGGGACCACTTTGTACAAGAAAGCTGGGTATTATCCCGCCGGGTTCGG	847

Table 3S. Primers used to generate the probes of DNA microarray

ID	ORF	Forward	Reverse	bp
1	Rv2323c	GGTGAGTCTAGAGCCTAT	GTGTCCAGGTGATAGAAC	227
2	Rv1373	GCCAACATGAACGAAGAC	CTGGTAATCGGCGTAATG	276
3	Rv0363c	CTATCAACTGCACCTCCT	CTGTCCAACTTGTCCTTG	238
4	Rv0288	GGATATGGCCGGATATGC	ATCATCGCCATGGTGTTG	204
5	Rv2556c	GTTGCGATTATCGAGACC	GATTGTCCTGGTTGAGGT	232
6	Rv2651c	CGTCATCGTGCCTTATGG	CCACACCAGCTTTCACAT	266
7	Rv1182	TACAACGGCAACGGACAA	GCGTACATCAGGTGGAACT	263
8	Rv0856	CAACCGTCAAGATTCTGG	CCAACACATGCTCACTTG	231
9	Rv0582	AGTGTCTGAGTGCATCGA	ATCCGCTGATCCTGGTAT	216
10	Rv1780	CGATCTCCTTCTTGACCT	GCCACATTGATGACTTGA	285
11	Rv2624c	AGCGTCTGACATCAACTG	GCAATACCCGTGTGAGTG	237
12	Rv1786	AGTGCTATGCCGTCGATCC	ACACCGTCTCTGGTCAGCT	109
13	Rv3462c	CTGCCCAATGCCATGTTC	CGACAATTCCACCACCAC	126
14	Rv3874	CGCAGGAGGCAGGTAATTTC	TCGGCCCTCGAGTATTGGA	226
15	Rv0313	CAGGTTCCTCAGCTCATC	TCGGTGTTGTCCTTGTTC	210
16	Rv0677c	CTGCTCATCCTGGTTGTG	CGTGGTCTTCAAGGTGAG	252
17	Rv0637	ATCCTCGCCAAATATGTG	TTGTCCCATTTGAGTCTG	287
18	Rv3278c	CGCACTGGAATCGCTTAA	GAACTCCACGCTGTTGAT	296
19	Rv1749c	GAGTTGATCGGCTATACG	TATGGGTTGGTGTTGTTC	206
20	Rv2986c	CGTCGAGAATGTCGTTGA	TGCCTTCTTCGCTACCTT	283
21	Rv3005c	ATTCCAGAACTCGCTGTC	GGACCACTCAAGATAACG	270
22	Rv2605c	GTCAACATCTACCGAGGAAG	GCCGCCATGCTGAATATG	272
23	Rv3759c	GGCAGTGTGAAGTCCATC	CTCCAACTCAACGGCATC	252
24	Rv3524	CCATTCACCGACACCATC	TCCACCGCCACATCATAG	293
25	Rv1560	AACTTGCCGCCGAGGTCAT	TCCAGCCCGAGCAGAAACT	118
26	Rv0616c	CTGCTTGTGCAGGTCTTG	GATCAGTCCCGTTGGAATAC	112
27	Rv3904c	AATTCGGTCGCCACGTCGA	TGTCGTTGCGCCTCAGCAT	112
28	Rv0140	GATCACCCGATCACCATC	CGGTAGTCACGCTGTAAT	223
29	Rv1139c	TGTGGTGATGGTTATCCT	CGCAACATAATTCGGATG	250
30	Rv1506c	CGAACGCAGACTTCATCT	GGTCAGCATAGTACAGGTC	228
31	Rv2080	TCGTTCACCTCGTGTAAC	GCACTCACCATCAAGGAT	252
32	Rv0394c	ACGCTTTCCCAACTTGAG	CGTCGTGGATAAGGATGT	247
33	Rv0577	GCTCATCTGGAACGAACT	TCATCCACCGCAAAGTAG	210
34	Rv3213c	ATCACCAATCCGAATCTG	TACCTGTCTTCCAGTGTT	256
35	Rv1433	GGCTCCTACACTGTCTTG	AATACCACTCTGCGTCCT	229
36	Rv1061	CAATACCCACCCATTCCT	CATAGATCGGCACATTCG	239
37	Rv3397c	CACTATCTGCGGTCTATG	ATCAACTCTGCGAACATC	202
38	Rv3784	AGGAACCGCTTGATATACG	GACGCCGAAGATGTTGAA	210
39	Rv0170	GGTGAGGTTGTCAAGAAC	TGAATAGCGTCCAGGTAG	233
40	Rv2830c	GGAGATCGAGATCACCAA	GAAGAGTTCGTCGTCATC	124
41	Rv0150c	CATTTCCACTGTGGTTGC	ATACGGTGATGCTGTGAC	177
42	Rv0968	GCAAGATGGTGGTGAAGG	CCAGTGGTGGAACTTCTTC	180
43	Rv1290A	TCTGGAAGGCGCTCGAAT	CACGTAGACTGCCAAAGC	200
44	Rv2481c	AGTGAACTGGGTCAGTGG	GGATCGAGTTCCTCAGCT	134
45	Rv0967	TGACGGAATCGTTCGGATG	GCGTGAATTTGACGGCAT	200
46	Rv3687c	TCAGCATCGGTGGTGAGA	AGTCAAGGCATCGTGGAG	281
47	Rv2537c	ACGAGCTGGTCGCTCTGAT	CACGTTGGAGATATGCACCTC	227
48	Rv2256c	TTGCGTGCGGTCACTAAT	CAGCACCGAATCCAGTTC	267
49	Rv2322c	TTGCCAATGAACTCTGATG	TGTTGTCGTCGATTGTCT	259
50	Rv0200	TTGCGTCGTGATTCGGTA	GGCGTATTGCTCCTTGAA	291
51	Rv0963c	TCAGCGATCAGCACATCA	TGGTATTGGCGACATGGT	201
52	Rv1463	GTGAGACACATGCCTTGAT	CGCAGGAAGTTCGACATC	220
53	Rv3500c	CATTCCGTTGTATTCGTTGTC	CGTTGTAGCCGTAGTAGGTA	203
54	Rv3783	ATCGTCATCTACTTCGTCATC	GGTCTCGTCGTTCCAGAT	219
55	Rv1096	GCTGTTCGGTCATCAAGT	GCGGAATCGTGGTCATAT	222
56	Rv0567	AGCAGTTGGTCGCTAAGG	CTCGAACGAACGGAATCC	206
57	Rv3679	GAAGGCGTGGTGAAGTTA	CTGGATGGTCTCGGTAAG	294

58	Rv3208A	CCAGTGAGGTAGAAGAACT	GACACCGATCTCGACATA	128
59	Rv3418c	ATTCCTGACACCGCCAAG	GGTATTCCTCGCCGTTGT	172
60	Rv2274c	GGATCTCGTGTCCACCAA	CACAACGGATCTGACCTG	131
61	Rv2658c	GCTTCACCGAAACACAGT	GCCTCTGCTATTGATGGAT	181
62	Rv2185c	GGACGCAGCCATCTTCAA	GTTCCGCCTTACGCTTGA	215
63	Rv1156	GCCTGCTATACACCGATT	GTCACTCCGTACTGCTTG	216
64	Rv2460c	ATCCTGCCGTCGTTCATC	GTGTCGTAGATCGCCATCA	233
65	Rv3223c	GGATACTGACCAACACCTA	GACATCGGCGTAGTAGAC	233
66	Rv1980c	GTGGTGCTCAAGGTCTAC	GTGACTGCGAAGTTCTGA	245
67	Rv0588	ATGCGGATCAGTGAGGAG	AGGAAGGTGCGGAAGTAG	212
68	Rv3806c	GCTGGTAATGGTCGTCTA	AGATAGGTGCTGGTGTAG	279
69	Rv2964	CTTGCTGGACTTGTTGTG	CTGGAAGGAACGAATGGT	290
70	Rv2077c	AGCACCGAGCACCTTATC	GGCGTCCTCTACAGCATA	267
71	Rv3250c	CCAATGCGGCTTTGAGTA	CTCGAAATCCGACTTTGC	130
72	Rv2076c	GGTGCTATTTCGCCTTTATG	CAACCCGAGACTCCAGATAT	107
73	Rv2104c	CGGCAAGTGTCCTTCAAG	ACAAGCTCTTCGTCCTCG	167
74	Rv2653c	GCGACATCACACGAAATC	AAGTGATACGGATGCCAG	119
75	Rv3078	GGTCCTCAACGGGATGTTC	TTGGCGTAGGCGGAGTAA	114
76	Rv2602	TGGCTAGACACCATCAAC	TAGGTAGGCATCCATCCA	270
77	Rv3291c	——	——	—
78	Rv0566c	GACAACGCACTCAACCAG	CGTTCTCGCTGCTAATGC	268
79	Rv0052	CCCGATGTGGTGATCTTT	CCAGCGAGTTGAACAGAT	208
80	Rv3781	CGGCTACGAGAACATCAT	CGAGCAACAGGATCTCTG	200
81	Rv0801	AGCAGTTCGATGGCACGA	CATCCAGGTCCTTGGTCGT	153
82	Rv1871c	TCGTGGTCAATCCAATCG	GCCTTGATGTTGTAGACG	169
83	Rv2297	CGTAGGCAGCAGATGAAC	CCACCATCCATTCCTTCTC	292
84	Rv2036	GTGGAGCGTCAAAGAAGT	TCCTGGTGGTGGATCATG	243
85	Rv2636	GCAAACTCATCCTCCTCA	GTTCATTCCGTTGTCCAG	293
86	Rv2002	CGGCATTCTCAACATCGG	GAACTTGGTGGCGGTATAG	208
87	Rv2744c	GCCATTGAGGAAGCACAG	GGCGGCGTTGTTGTATTC	210
88	Rv1882c	CACTGCCTTACCTCAAGAA	ATAGCGGTGTCGATCAGA	202
89	Rv3232c	CCTGGAATCGGTGTATCG	CCTGTAGTTGCCACTCAC	223
90	Rv3206c	GTACGACCTGATCTTGGA	ACCGAGGCACAGATAATG	252
91	Rv0741	ACTGGATCGGTGGATCTC	GGTTAGGAGTCGGATCTTG	163
92	Rv1103c	GTACACAGATTGCGGTTC	CCAGCGTATCCAGATCAC	195
93	Rv1670	GGAAGGCAACCACTACTT	GACTCTCGGATTCACCTT	245
94	Rv2199c	CGTGTTGACCTCGATGTT	AGCTATGCGGACTGAAGA	200
95	Rv3249c	GACCGATTAGTGGACAAC	CACATTGGCGTCGTTATC	264
96	Rv1686c	GTTCTGGTTCCTTGGCTT	TCACGTTACTGATCCACTC	233
97	Rv0852	TGATCGGAGTACGCAGTC	TATCGCAGAACGGACCTC	242
98	Rv3522	TACCAACGGCGTCGAGATG	CGGTCAGCAGTTTGATGTAGG	236
99	Rv0666	GCTGCACCCTGCCTGATG	AGCTCCTGGCCCTCACCA	128
100	Rv2412	AACAAGGCGGTGAAGTCC	TTGTCCAGCTTGCGGTTG	119
101	Rv2122c	ACCTTCGAGGATCTGTTC	TTACCCAGAGCATGAACC	104
102	Rv2007c	TGCGTGGATGTGATGGAC	GGCAGGACTTGGTGGAAA	218
103	Rv0395	TTCGGCGGGAAGATAGTC	TGTCAGGGTTACGCAGTC	202
104	Rv3108	GCGAAGAACACCATTACC	GGCACAACGGATATGATG	278
105	Rv3348	CGAGGTCGATTCGATTCAG	ACGTCGGACTTGCTCTTG	226
106	Rv3841	CACAGCGGCACAACAATA	TGACTGTGCGTTCCTGAT	239
107	Rv0177	CGTGATGCTCAGTGATGT	CCTCGTTCCACCTCTGTA	215
108	Rv2016	TCTGTCCAACCTCATCCA	CAATGCGAACCTCTTCCA	245
109	Rv1556	AGCAAGGCAACGGTCTAC	GCAAGATGTACTGGATCAGG	274
110	Rv0351	GAACAGGTAACCGTCACT	CCAGTACACCCAGCAATT	259
111	Rv1368	TTCCTGGTCACGAACAAG	CGACGATCCACAAGGTTA	283
112	Rv0953c	GGCGAGTTCGTCAAGTTC	GAACAGCACCTCCGTAAC	297
113	Rv2903c	ATTGCTGTGGTGCTCTAC	CGAACGGATCGACTTGTA	222
114	Rv3310	TAACGCCGACAACGACAT	TGTAGTGGCTGATGGTCTC	218
115	Rv3194c	CAAGCAGGTGGTCCAGAT	AATCAGCGGCGTTGTCAT	206
116	Rv0205	GTCGTCAGCCAATTCATC	GTAACCAGCTCGGTAATG	218

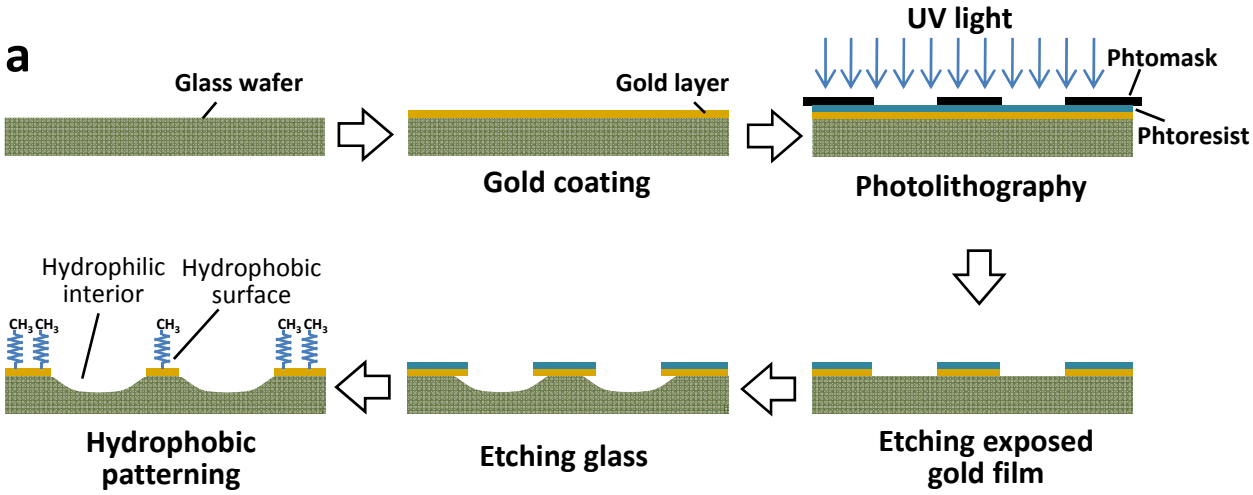
Table 4S. Specific primers for the detection of DMD deleted exons

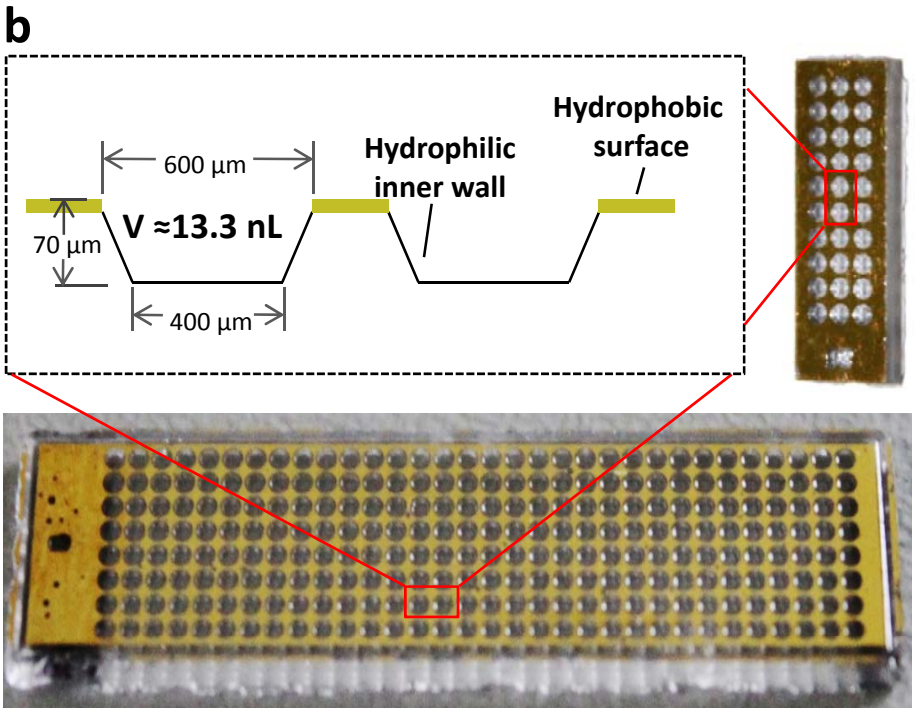
Exon	Forward	Reverse	bp
45	TGTAAAACGACGGCCAGTAAACATGGAACATCCTTGTGGGGAC	CAGGAAACAGCTATGACCCATTCCTATTAGATCTGTCGCCCTAC	583
48	TGTAAAACGACGGCCAGTTTGAATACATTGGTTAAATCCCAACATG	CAGGAAACAGCTATGACCCCTGAATAAAGTCTTCCTTACCACAC	542
19	TGTAAAACGACGGCCAGTGATGGCAAAAGTGTTGAGAAAAAGTC	CAGGAAACAGCTATGACCTTCTACCACATCCCATTTTCTTCCA	495
17	TGTAAAACGACGGCCAGTGACTTTCGATGTTGAGATTACTTTCCC	CAGGAAACAGCTATGACCAAGCTTGAGATGCTCTCACCTTTTCC	452
51	TGTAAAACGACGGCCAGTGAAATTGGCTCTTTAGCTTGTGTTTC	CAGGAAACAGCTATGACCGGAGAGTAAAGTGATTGGTGGAAAATC	424
8	TGTAAAACGACGGCCAGTGGCCTCATTCTCATGTTCTAATTAG	CAGGAAACAGCTATGACCGTCCTTTACACACTTTACCTGTTGAG	396
12	TGTAAAACGACGGCCAGTGATAGTGGGCTTTACTTACATCCTTC	CAGGAAACAGCTATGACCGAAAGCACGCAACATAAGATACACCT	367
44	TGTAAAACGACGGCCAGTCTTGATCCATATGCTTTTACCTGCA	CAGGAAACAGCTATGACCTCCATCACCCTTCAGAACCTGATCT	304
4	TGTAAAACGACGGCCAGTTTGTCGGTCTCTCTGCTGGTCAGTG	CAGGAAACAGCTATGACCCAAAGCCCTCACTCAAACATGAAGC	232

Figure 1S.｜Microwell chip fabrication. (**a**) A gold coated glass slide was first photolithographically patterned and isotropically etched. After being thoroughly cleaned and hydroxylated by piranha solution, a super-hydrophobic thiol solution was added to the slide, which created a self-assembled hydrophobic monolayer only on the gold surface and thereby the distinct hydrophobic and hydrophilic pattern on the slide. (**b**) Images of a 256-well and 30-well chip. The microwells were bowl-shape with a volume of ~13.3 nL.

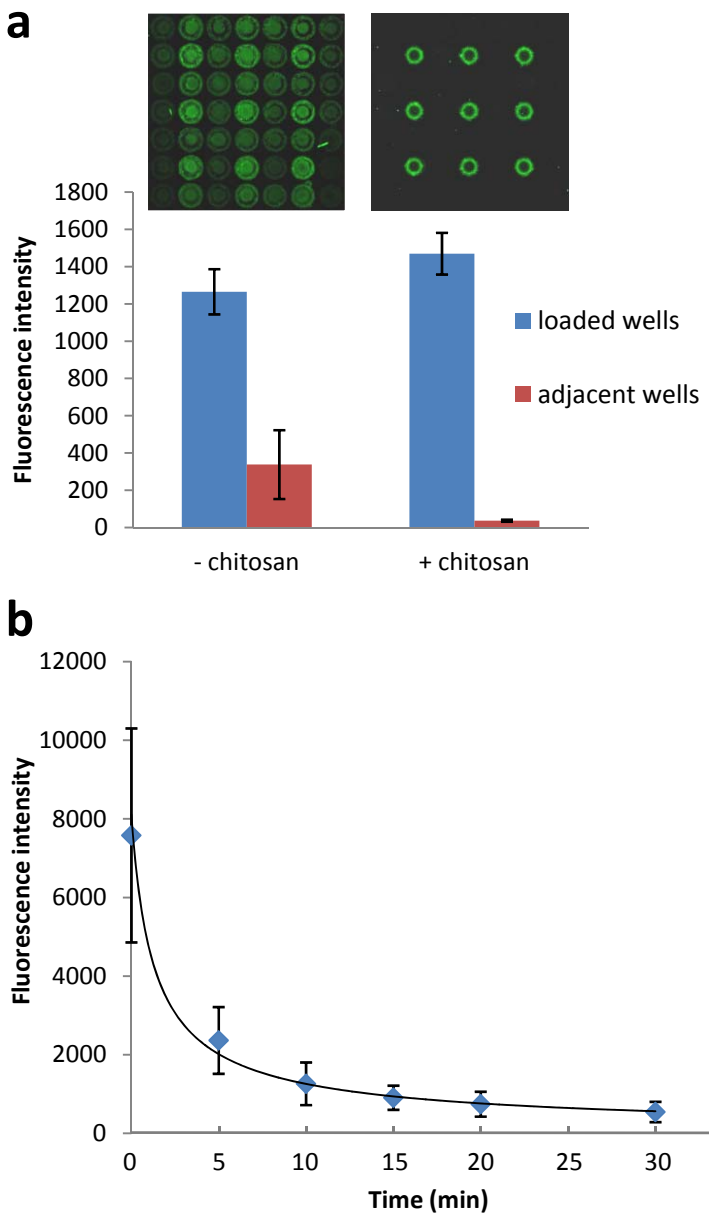
Figure 2S.｜Retaining and releasing of pre-loaded primers within microwells. (**a**) Retaining effect of chitosan. Hex-labeled oligos were printed in the microwells with (+) or without (-) chitosan. After loading 1x standard PCR buffer by sweeping a droplet across the surface, the chip was scanned. The fluorescence intensity of the microwells with Hex-labeled oligos and the neighboring blank wells were recorded. (**b**) Chitosan retained primer releasing upon heating. The chip was covered with 1x standard PCR buffer and incubated at 94 ℃in a homemade humidity chamber, and then he fluorescence signal was recorded as a function of time.

Figure 3S.｜The *in vitro* transcribed RNAs are free of plasmid DNA. Plasmids carrying Aba, Cpn, Eco, Mpn, Hin, Kpn, Lpn, Pae, Sau, Sma and Spn were transcribed with RNA transcriptase individually. Plasmid DNAs were removed by DNase digestion. To ensure that the template DNAs were completely removed, RT-PCRs were performed for both with (+) and without (-) reverse transcriptase.

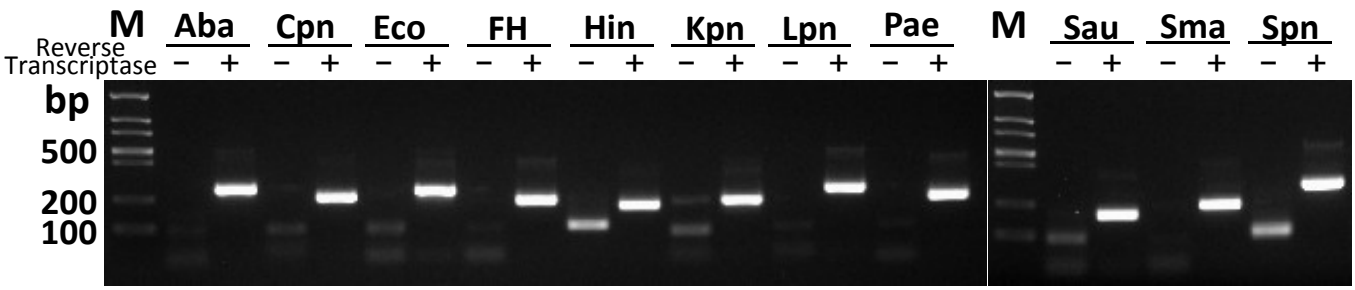




Li *et. al.*, Fig. 1S



Li *et. al.*, Fig. 2S



Li *et. al.*, Fig. 3S