

## Supplementary Information

**Table S1.** EBV latent/lytic gene expression in patients with EBV primary infection by RT-LAMP (group 1).

Subjects	No. (%) of 51 Specimens with Pos Result					
	EBNA1 Lat I/II/III <sup>a</sup>	EBNA2 Lat III <sup>a</sup>	LMP1 lat II/III <sup>a</sup>	LMP2A Lat 0/II/III <sup>a</sup>	BZLF1 IE <sup>b</sup>	GAPDH
1	Neg <sup>c</sup>	Neg	Neg	Neg	Neg	Pos
2	Neg	Neg	Neg	Neg	Neg	Pos
3	Neg	Neg	Neg	Neg	Pos <sup>d</sup>	Pos
4	Neg	Neg	Neg	Neg	Neg	Pos
5	Neg	Neg	Neg	Neg	Pos	Pos
6	Neg	Neg	Neg	Neg	Pos	Pos
7	Neg	Neg	Neg	Neg	Neg	Pos
8	Pos	Pos	Pos	Pos	Pos	Pos
9	Neg	Neg	Pos	Pos	Neg	Pos
10	Neg	Neg	Neg	Neg	Neg	Pos
11	Neg	Neg	Neg	Neg	Pos	Pos
12	Neg	Neg	Neg	Neg	Neg	Pos
13	Neg	Neg	Pos	Pos	Neg	Pos
14	Neg	Neg	Neg	Neg	Neg	Pos
15	Neg	Neg	Neg	Neg	Neg	Pos
16	Neg	Neg	Neg	Neg	Pos	Pos
17	Neg	Neg	Neg	Neg	Neg	Pos
18	Pos	Pos	Pos	Pos	Neg	Pos
19	Neg	Neg	Pos	Pos	Neg	Pos
20	Neg	Neg	Neg	Neg	Pos	Pos
21	Neg	Neg	Neg	Neg	Neg	Pos
22	Neg	Neg	Neg	Neg	Neg	Pos
23	Neg	Neg	Neg	Neg	Neg	Pos
24	Neg	Neg	Neg	Neg	Pos	Pos
25	Neg	Neg	Neg	Neg	Pos	Pos
26	Neg	Neg	Neg	Pos	Neg	Pos
27	Neg	Neg	Neg	Neg	Pos	Pos
28	Neg	Neg	Neg	Neg	Neg	Pos
29	Neg	Neg	Neg	Neg	Pos	Pos
30	Neg	Neg	Neg	Neg	Pos	Pos
31	Neg	Neg	Neg	Neg	Neg	Pos
32	Neg	Neg	Pos	Pos	Neg	Pos
33	Neg	Neg	Neg	Neg	Pos	Pos
34	Neg	Neg	Neg	Neg	Neg	Pos
35	Neg	Neg	Neg	Neg	Pos	Pos
36	Neg	Neg	Neg	Neg	Neg	Pos
37	Neg	Neg	Neg	Neg	Neg	Pos
38	Neg	Neg	Pos	Pos	Neg	Pos
39	Neg	Neg	Neg	Neg	Pos	Pos
40	Neg	Neg	Neg	Neg	Pos	Pos
41	Neg	Neg	Neg	Neg	Pos	Pos
42	Neg	Neg	Neg	Neg	Neg	Pos
43	Neg	Neg	Pos	Pos	Neg	Pos
44	Neg	Neg	Neg	Pos	Neg	Pos
45	Neg	Neg	Neg	Neg	Neg	Pos
46	Neg	Neg	Neg	Neg	Pos	Pos
47	Neg	Neg	Neg	Neg	Pos	Pos
48	Neg	Neg	Neg	Neg	Pos	Pos
49	Neg	Neg	Neg	Neg	Neg	Pos
50	Neg	Neg	Neg	Neg	Pos	Pos
51	Neg	Neg	Neg	Pos	Neg	Pos

<sup>a</sup> Latent transcript expression; <sup>b</sup> Lytic gene expression; <sup>c</sup> Pos, Positive; Neg, Negative.

**Table S2.** EBV latent/lytic gene expression in patients with EBV past infection by RT-LAMP (group 2).

Subjects	No. (%) of 37 Specimens with Positive Result					
	EBNA1 Lat I/II/III <sup>a</sup>	EBNA2 Lat III <sup>a</sup>	LMP1 Lat II/III <sup>a</sup>	LMP2A Lat 0/II/III <sup>a</sup>	BZLF1 IE <sup>b</sup>	GAPDH
1	Neg <sup>c</sup>	Neg	Neg	Neg	Neg	Pos
2	Pos	Neg	Neg	Pos <sup>d</sup>	Neg	Pos
3	Pos	Neg	Neg	Pos	Neg	Pos
4	Neg	Neg	Neg	Pos	Neg	Pos
5	Pos	Neg	Neg	Neg	Neg	Pos
6	Pos	Neg	Neg	Pos	Neg	Pos
7	Neg	Neg	Neg	Neg	Neg	Pos
8	Pos	Neg	Neg	Neg	Neg	Pos
9	Pos	Neg	Neg	Pos	Neg	Pos
10	Pos	Neg	Neg	Neg	Neg	Pos
11	Pos	Neg	Neg	Pos	Neg	Pos
12	Neg	Neg	Neg	Pos	Neg	Pos
13	Neg	Neg	Neg	Neg	Neg	Pos
14	Neg	Neg	Neg	Pos	Neg	Pos
15	Pos	Neg	Neg	Neg	Neg	Pos
16	Neg	Neg	Neg	Pos	Neg	Pos
17	Pos	Neg	Neg	Pos	Neg	Pos
18	Neg	Neg	Neg	Neg	Neg	Pos
19	Neg	Neg	Neg	Pos	Neg	Pos
20	Pos	Neg	Neg	Pos	Neg	Pos
21	Neg	Neg	Neg	Pos	Neg	Pos
22	Pos	Neg	Neg	Neg	Neg	Pos
23	Neg	Neg	Neg	Neg	Neg	Pos
24	Pos	Neg	Neg	Pos	Neg	Pos
25	Pos	Neg	Neg	Neg	Neg	Pos
26	Neg	Neg	Neg	Pos	Neg	Pos
27	Neg	Neg	Neg	Pos	Neg	Pos
28	Pos	Neg	Neg	Neg	Neg	Pos
29	Pos	Neg	Neg	Pos	Neg	Pos
30	Pos	Neg	Neg	Pos	Neg	Pos
31	Neg	Neg	Neg	Neg	Neg	Pos
32	Neg	Neg	Neg	Pos	Neg	Pos
33	Pos	Neg	Neg	Neg	Neg	Pos
34	Pos	Neg	Neg	Pos	Neg	Pos
35	Neg	Neg	Neg	Pos	Neg	Pos
36	Pos	Neg	Neg	Pos	Neg	Pos
37	Pos	Neg	Neg	Pos	Neg	Pos

<sup>a</sup> Latent transcript expression; <sup>b</sup> Lytic gene expression; <sup>c</sup> Pos, Positive; Neg, Negative.

**Table S3.** Primers and/or probes used for RT-qPCR and conventional RT-PCR.

Method	Primer and Probe	Position <sup>a</sup>	Product Size (bp)	Sequence (5'-3')	
Conventional RT-PCR	<i>LMP1</i> FP <sup>b</sup>	511–530	160	CTCCTTTGGCTCCTCCTGTT	
	<i>LMP1</i> RP <sup>b</sup>	650–670		GTCTGCCCTCGTTGGAGTTAG	
	<i>LMP2A</i> FP	205–226	152	GACCGTCACTCGGACTATCAAC	
	<i>LMP2A</i> RP	338–356		CTTCCTCTGCCCCGCTTCTT	
	<i>EBNA1</i> FP	170–188	234	GGTTTGGAAAGCATCGTGG	
	<i>EBNA1</i> RP	383–403		CAAAGGGGAGACGACTCAATG	
	<i>EBNA2</i> FP	1873–1892	202	GGGCATGGACCTCTAGCATC	
	<i>EBNA2</i> RP	2055–2074		GGGTAAGCCTCGGTTGTGAC	
	<i>BZLF1</i> FP	273–293	227	ACCTCAGCTGTTCCAGT CTC	
	<i>BZLF1</i> RP	479–499		ATTCTGGCTGTWGTGGTTTCC <sup>c</sup>	
	<i>GAPDH</i> FP	528–548	247	TGGTATCGTGGAAGGACTCAT	
	<i>GAPDH</i> RP	755–774		TTCTAGACGGCAGGTCAGGT	
	RT-qPCR	<i>LMP1</i> FP	247–272	98	CTTTGTCTACTCCTACTGATGATCAC
		<i>LMP1</i> RP	323–344		CCGAAGATGAACAGCACAAATC
<i>LMP1</i> Probe		282–307	FAM-CATCGCTCTCTGGAATTTGCA CGGAC-TAMRA		
<i>LMP2A</i> FP		264–282	92	GCAACACGACGGGAATGAC	
<i>LMP2A</i> RP		337–355		TTCCTCTGCCCCGCTTCTTC	
<i>LMP2A</i> Probe		299–323		FAM-CCTACTCTCCACGGGATGACT CATC-TAMRA	
<i>EBNA1</i> FP		270–289	129	GAGCCTGACCTGTGATCGTC	
<i>EBNA1</i> RP		378–399		TAGGCCATTTCCAGGTCCTGTA	
<i>EBNA1</i> Probe		333–357		FAM-CGGCCGTCTCCTTTAAGTGTG AATC-TAMRA	
<i>EBNA2</i> FP		878–900	127	AGAGAGTGGCTGCTACGCATTAG	
<i>EBNA2</i> RP		983–1004		TCACAAATCACCTGGCTAAGCC	
<i>EBNA2</i> Probe		921–947		FAM-CAGTAACCACCCAGCGCCAAT CTGTCT-TAMRA	
<i>BZLF1</i> FP		495–513	88	AGAATCGCTGGAGGAATGC	
<i>BZLF1</i> RP		563–582		CTTAAACTTGGCCCCGGCATT	
<i>BZLF1</i> Probe	523–547	FAM-CTAGAAATAAAGCGATAACAAG AATC-TAMRA			
<i>GAPDH</i> FP	33–51	223	GGTGAAGGTCGGAGTCAAC		
<i>GAPDH</i> RP	236–255		GAAGATGGTGATGGGATTC		
<i>GAPDH</i> Probe	116–135		FAM-TTGCCATCAATGACCCCTTC-T AMRA		

<sup>a</sup> Nucleotide positions; <sup>b</sup> FP (forward primer), RP(reverse primer); <sup>c</sup> W = A/T.