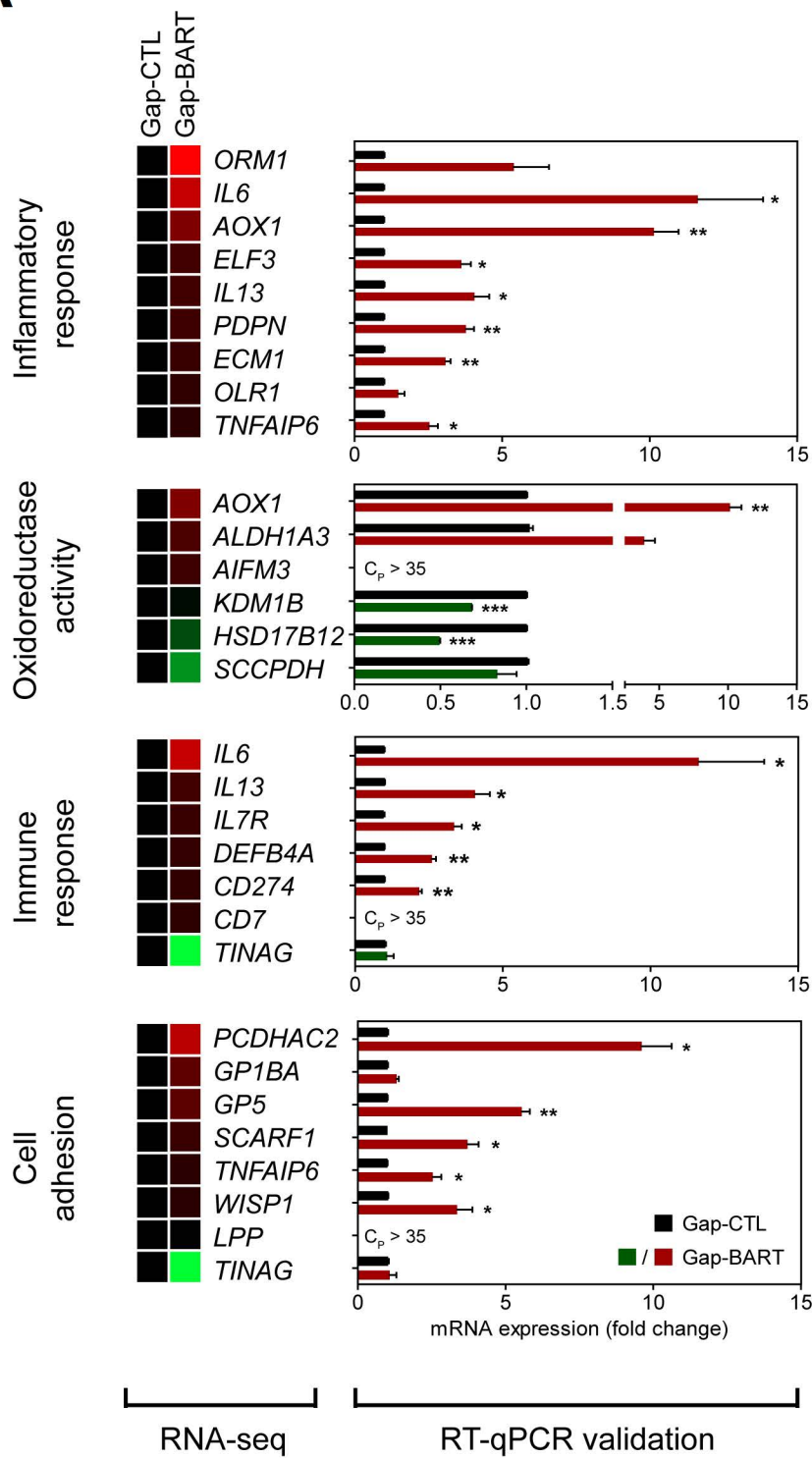
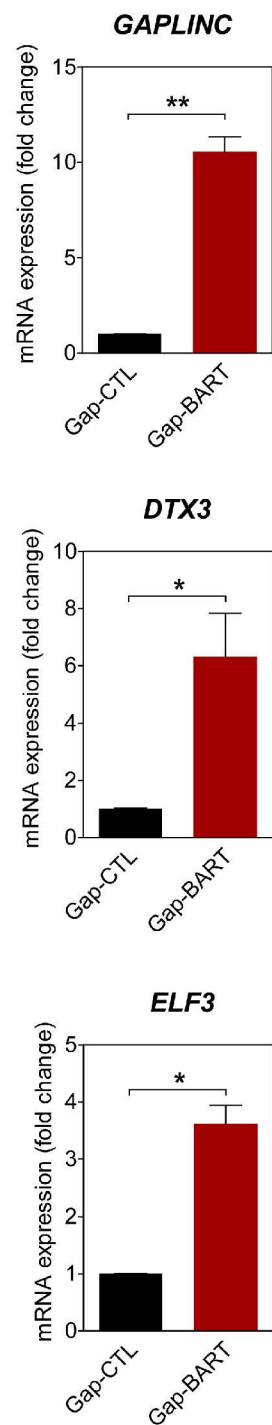
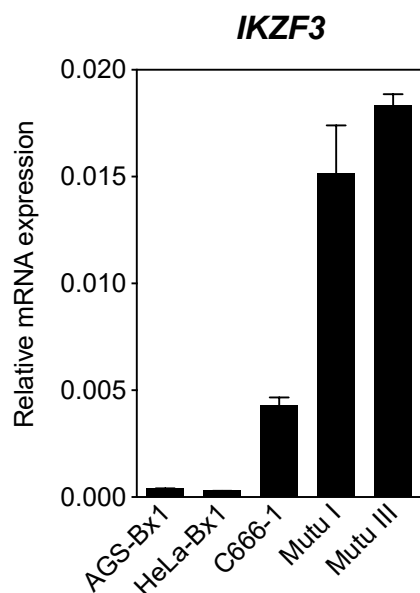
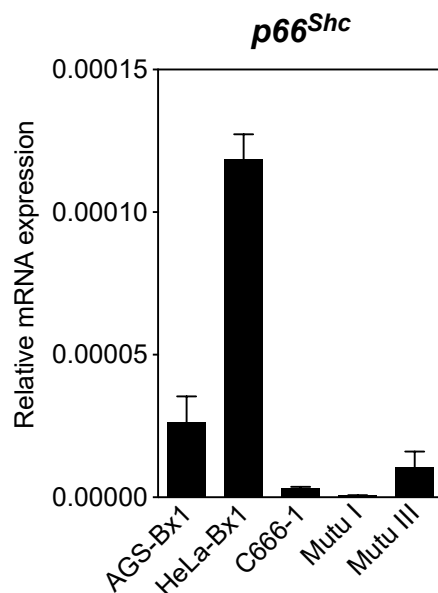


A**B**

Supplementary figure 2 (A) RT-qPCR validation of differentially expressed genes from four groups identified by GO enrichment analysis which may play a role in EBV infection and NPC tumor progression. (B) RT-qPCR validation of *GAPLINC*, *DTX3* and *ELF3*, which are upregulated by knockdown of BART lncRNA. Gene expression is shown as fold change in mRNA expression relative to that of *GAPDH*. C_p values >35 were considered unreliable. The average and SEM of three independent experiments are shown. **P*<0.05, ***P*<0.01, ****P*<0.001.

A**B**

Supplementary figure 3 Relative gene expression of *IKZF3* (A) and *F3* (B *p66^{Shc}*) in EBV-positive cell lines AGS-Bx1, HeLa-Bx1, C666-1, Mutu I and Mutu III analyzed by RT-qPCR. Gene expression is shown as mRNA expression relative to that of *ACTB*. The average and SEM of at least two independent experiments are shown.

Supplementary table 1 RNA-seq reads.

A

Sample	Raw reads	Filtered reads	Mapped to human genome
C666-1 Gap-CTL #1	130,320,036	128,896,420	122,357,404
C666-1 Gap-CTL #2	130,811,438	129,743,974	123,449,754
C666-1 Gap-BART #1	133,609,546	132,380,916	126,378,620
C666-1 Gap-BART #2	126,998,364	125,875,392	119,540,534

B

Sample	Unmapped reads	Mapped to EBV genome
C666-1 Gap-CTL #1	6,539,016	384,110
C666-1 Gap-CTL #2	6,002,296	167,628
C666-1 Gap-BART #1	6,294,220	257,428
C666-1 Gap-BART #2	6,334,858	143,578

Supplementary table 2 Sequences of oligos used in this study.

Oligo	Sequence (5'-3')	Reference
V(A/B)-F	TCTTCTAGAGGACGCAGGATATCTGCAGGATCAGAGG	Yamamoto <i>et al.</i> 2012(1)
VII(A/B)-R	AGGGGATCCGCACCCCCAGTACCGGGCCATCCG	Yamamoto <i>et al.</i> 2012 (1)
V-F	GAAAAGCTTGGGATTAATGCCTGGACCCTCACCAG	Yamamoto <i>et al.</i> 2012 (1)
VII(D)-R	AGGGGATCCCCCGCCACCACGGTGCAGCCTAC	Yamamoto <i>et al.</i> 2012 (1)
Gap-CTL	A*A*C*A*C*G*T*C*T*A*T*A*C*G*C*	N/A
Gap-BART_exon III	C*G*G*A*C*C*T*G*A*A*A*C*G*A*G*A*	N/A
Gap-BART_exon V	T*C*A*T*T*C*C*A*T*C*G*G*A*T*A*A*	N/A
Gap-BART_exon VII	T*A*C*A*C*C*T*T*C*A*T*C*A*C*G*G*	N/A
BART_exon III-F	GGGGTTGTAACGGAAGGCAA	N/A
BART_exon III-R	TGTCCGGTAAACGCCATACG	N/A
BART_exon V-F	CGGCCAGTAGCTTGATGAC	N/A
BART_exon V-R	GGTGACACGCACGAGAAATG	N/A
BART_exon VII-F	AAGTCAGGAATGCCTTCTGGTG	N/A
BART_exon VII-R	CACACCTGTTTACCCAGACC	N/A
ACTB-F	CACTCTTCCAGCCTTCCTTC	Cao <i>et al.</i> 2015 (2)
ACTB-R	GTACAGGTCTTTGCGGATGT	Cao <i>et al.</i> 2015 (2)
AIFM3-F	TCCCATTGTGTCCAAGGTGCG	N/A
AIFM3-R	AGGACATGTCGCCAGTCTTG	N/A
ALDH1A3-F	ATAAGCCCCGACGTGGACAAG	N/A
ALDH1A3-R	GAACCCGGCGGCCAAG	N/A
AOX1-F	TCATCTAAGGGTCTGGGAGAGT	N/A
AOX1-R	TCCAGGTTTCATCTCTCGGAA	N/A
CD274-F	TGCAGGGCATTCCAGAAAGA	N/A
CD274-R	TAGGTCCTTGGGAACCGTGA	N/A
CD7-F	CCTGTAGACCCAGAGAGGCT	N/A
CD7-R	GGAGACTGCTGCACCTCTT	N/A
CDH1-F	TGCCCAGAAAATGAAAAAGG	Albino <i>et al.</i> 2012 (3)
CDH1-R	GTGTATGTGGCAATGCGTTC	Albino <i>et al.</i> 2012 (3)

CDH16-F	TGCAGAGCTGTCTGTGGAAG	Sancisi <i>et al.</i> 2013 (4)
CDH16-R	CCCCTGACAGCACGATCT	Sancisi <i>et al.</i> 2013 (4)
CDK8-F	CAGAGGCTGTGACAATGGACT	N/A
CDK8-R	ATCCTTCCCATCTTTCCTCTTGG	N/A
CLDN11-F	CTCATCCTGCCGGGCTAC	N/A
CLDN11-R	CGGATGCAGGGAAGAACAGT	N/A
CLDN14-F	TCTTGACATGGGAGCTGGA	N/A
CLDN14-R	CTTCCAGGCATGCAGAAAACCT	N/A
CLDN18-F	TTCCATCCCAGTACCAAAGC	Ito <i>et al.</i> 2011 (5)
CLDN18-R	CCGTTCTTTCCCAGACATA	Ito <i>et al.</i> 2011 (5)
CXCL10-F	TTCAAGGAGTACCTCTCTCTAG	N/A
CXCL10-R	CTGGATTGACACATCTCTTCTC	N/A
CXCL8-F	TCCTGATTCTGCAGCTCTGT	N/A
CXCL8-R	AAATTTGGGGTGGAAAGGTT	N/A
CXCR2-F	TGGATTTCCTCCCTTGCAACC	N/A
CXCR2-R	AAATCCTGACTGGGTCGCTG	N/A
DDX58-F	GTGCAAAGCCTTGGCATGT	N/A
DDX58-R	TGGCTTGGGATGTGGTCTACTC	N/A
DEFB4A-F	GCTTGATGTCCTCCCCAGACT	N/A
DEFB4A-R	CAGGATCGCCTATACCACCAAA	N/A
DTX3-F	TTCCATGGGCTTTCCAGGTC	N/A
DTX3-R	GCCATTCTGGACAGGACGAA	N/A
ECM1-F	GGTGGGCTGCTCACACATTC	N/A
ECM1-R	AGGGGGACCCACTTCCTTTT	N/A
ELF3-F	CCTGGCGGAACTGGATTCT	N/A
ELF3-R	CATGAGGCTACCGGAGTGG	N/A
GAPDH-F	GAAGGTGAAGGTCGGAGTA	N/A
GAPDH-R	GAAGATGGTGATGGGATTTTC	N/A
GAPLINC-F	TGGACTCAGGCACGTTTACA	N/A
GAPLINC-R	TGGCACAATCAGGGCTCTTG	N/A

GP1BA-F	TGTGAGGTCTCCAAAGTGGC	N/A
GP1BA-R	TAAGGCATCAGGGTTGCCAG	N/A
GP5-F	GCTTGCAAGTGTGTCTTCCG	N/A
GP5-R	GGCTGTCTGGAGATCATGAGG	N/A
HSD17B12-F	GGAGCAGCGCCTATTAGTGT	N/A
HSD17B12-R	CGAAATACGCAGGGCTAGGT	N/A
IFIH1-F	GTTGAAAAGGCTGGCTGAAAAC	N/A
IFIH1-R	TCGATAACTCCTGAACCACTG	N/A
IFIT1-F	TAGCCAACATGTCCTCACAGAC	N/A
IFIT1-R	TCTTCTACCACTGGTTTCATGC	N/A
IFIT2-F	GGTCTCTTCAGCATTTATTGGTG	Imaizumi <i>et al.</i> 2014 (6)
IFIT2-R	TGCCGTAGGCTGCTCTCCA	Imaizumi <i>et al.</i> 2014 (6)
IFNA1-F	CAGTTCCAGAAGGCTCCAGC	Li <i>et al.</i> 2014 (7)
IFNA1-R	TCCTCATCCCAAGCAGCAG	Li <i>et al.</i> 2014 (7)
IFNB1-F	TTGAATGGGAGGCTTGAATA	N/A
IFNB1-R	CTATGGTCCAGGCACAGTGA	N/A
IFNL1-F	CGCCTTGGAAGAGTCACTCA	Bayer <i>et al.</i> 2016 (8)
IFNL1-R	GAAGCCTCAGGTCCCAATTC	Bayer <i>et al.</i> 2016 (8)
IFNL2-F	ACATAGCCCAGTTCAAGTC	Bayer <i>et al.</i> 2016 (8)
IFNL2-R	GACTCTTCTAAGGCATCTTTG	Bayer <i>et al.</i> 2016 (8)
IL10-F	CGAGATGCCTTCAGCAGAGT	N/A
IL10-R	CGCCTTGATGTCTGGGTCTT	N/A
IL13-F	TGAGGAGCTGGTCAACATCA	Stellato <i>et al.</i> 2011 (9)
IL13-R	CAGGTTGATGCTCCATACCAT	Stellato <i>et al.</i> 2011 (9)
IL5-F	GAGACCTTGCGACTGCTTTC	N/A
IL5-R	CCCCTTGACAGTTTGACTC	N/A
IL6-F	CCCTGAGAAAGGAGACATGTAA	N/A
IL6-R	TCTTTTTTCAGCCATCTTTGGA	N/A
IL7R-F	CCAACCGGCAGCAATGTATG	N/A
IL7R-R	AGGATCCATCTCCCCTGAGC	N/A

IKZF3-F	AGAGAAGTTCCTTGAGGAG	Veistinen <i>et al.</i> 2002 (10)
IKZF3-R	TAGCTGATGGCGTTATTGATGG	Veistinen <i>et al.</i> 2002 (10)
IRF7-F	GCAGCGTGAGGGTGTGTCTT	Li <i>et al.</i> 2011 (11)
IRF7-R	GCTCCATAAGGAAGCACTCGAT	Li <i>et al.</i> 2011 (11)
ISG20-F	CTCCACGAACGTCAAATGCG	N/A
ISG20-R	ATCAAGTGAAGTCAGGGGCG	N/A
ITGA10-F	CTGACAGGTCTCTGCTCCCCC	Mertens-Walker <i>et al.</i> 2015 (12)
ITGA10-R	CCATCGCTGTCCACCCCCAA	Mertens-Walker <i>et al.</i> 2015 (12)
ITGA5-F	CAAAGGGCCTGGAGTTGGAT	N/A
ITGA5-R	AGCCTGAAACACTCAGCCTC	N/A
ITGA9-F	CAAAGGCATCGGCAAGGTTT	N/A
ITGA9-R	TCCCCATTCAAGTCAACTGC	N/A
ITGB7-F	TGCCGTCTCCAGATCAGTA	N/A
ITGB7-R	GTTTCCACATAGGTGCGTGC	N/A
KCNQ1OT1-F	TACCGGATCCAGGTTTGCAGTACA	Cao <i>et al.</i> 2015 (2)
KCNQ1OT1-R	GCTGATAAAGGCACCGGAAGGAAA	Cao <i>et al.</i> 2015 (2)
KDM1B-F	ACAGAATTGGAGGCCGAGTC	N/A
KDM1B-R	GAGCGAGCAGATACTTGTCA	N/A
LPP-F	AGACAAGATCGGCCTGAAGAA	N/A
LPP-R	CCTCTGATGAGCGTCCAGTG	N/A
OAS1-F	CGTTGGTGTGGCATCTTCT	N/A
OAS1-R	TGTCTGCATTGTCGGCACTT	N/A
OLR1-F	GAGTAGCAAATTGTTCAGCTCCT	N/A
OLR1-R	CTCGGACTCTAAATCAGATCAGC	N/A
ORM1-F	CACCACCTACCTGAATGTCCAGC	Porez <i>et al.</i> 2013 (13)
ORM1-R	GATCAGCAAGTGAGCGAAATGC	Porez <i>et al.</i> 2013 (13)
p66 ^{Shc} -F	AATGAGTCTCTGTTCATCGCTGGAG	Li <i>et al.</i> 2014 (14)
p66 ^{Shc} -R	GGCGATGATCTGTTTGCAGTCTGCGG	Li <i>et al.</i> 2014 (14)
PCDHAC2-F	CTGGGGAGCTGATAGCCAGA	N/A
PCDHAC2-R	CCCCTGCTTAACGGGTCTTT	N/A

PDPN-F	CAACAGTGACCCTGGTTGGA	N/A
PDPN-R	GGCGTAACCCTTCAGCTCTT	N/A
SCARF1-F	ACAGTCTCACATCACGACCC	N/A
SCARF1-R	CTTGGGGTGGCACACAGTAG	N/A
SCCPDH-F	AGCTGGGAAGACCAACTG	N/A
SCCPDH-R	TCAAGCGAGGCTGGATTAGC	N/A
SELE-F	GGCAGTGGACACAGCAAATC	N/A
SELE-R	TGGACAGCATCGCATCTCA	N/A
SEPT9-F	TGAAGAAGTCTTACTCAGGAGGC	N/A
SEPT9-R	TGGAATTCTGGGTGGAGCTG	N/A
TINAG-F	GTTCCAAGGAGAAGCCCACA	N/A
TINAG-R	CCGGTCCACATTCTCTGGAA	N/A
TLR3-F	TGTCTGGAAGAAAGGGACTTTGA	N/A
TLR3-R	GTTGAACTGCATGATGTACCTTGA	N/A
TNF-F	TCTTCTCCTTCCTGATCGTG	N/A
TNF-R	GCCAGAGGGCTGATTAGAGA	N/A
TNFAIP6-F	AGCACGGTCTGGCAAATACA	N/A
TNFAIP6-R	ATCCATCCAGCAGCACAGAC	N/A
WISP1-F	GTAAGATGTGCGCTCAGCAG	N/A
WISP1-R	GAAGGACTGGCCGTTGTTGT	N/A
oriPtL_BamHI-F	CGGGGATCCCCTTGACACCCACAACATGTAAGGGC	N/A
oriPtL-KpnI-R	GGGGTACCCCTGACACGGGGGGGACCAAAC	N/A
ChIP_IFNB1_-41-F	AGGACCATCTCATATAAATAGGCCATACCC	Li et al. 2011(15)
ChIP_IFNB1_-41-R	ACTGAAAATTGCTGCTTCTTTGTAGGAATC	Li et al. 2011 (15)
ChIP_IFNB1_+644-F	CTCCTAGCCTGTGCCTCTGG	N/A
ChIP_IFNB1_+644-R	ATGCAGTACATTAGCCATCAGTCA	N/A
ChIP_CXCL8_-49-F	GGGCCATCAGTTGCAAATC	Imamura et al. 2014 (16)
ChIP_CXCL8_-49-R	TTCCTTCCGGTGGTTTCTTC	Imamura et al. 2014 (16)
ChIP_CXCL8_+2918-F	CCAGCTGTGTTGGTAGTGCT	N/A
ChIP_CXCL8_+2918-R	AAACAAGTTTCAACCAGCAAGAA	N/A

A star indicates that the nucleotide has a phosphorothioate backbone and an undisclosed number of flanking nucleotides are LNA nucleotides. N/A; not applicable.

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