

Supplemental Figure 1. Consistency and reproducibility of plasma EBV DNA and anti-EBV antibody test results in this study. (A) Plasma EBV DNA test results had high test-retest reliability, with intraclass correlation coefficient (ICC) > 0.95. Each dot represents one individual and DNA extraction duplicates from 6 individuals were analysed. (B) Minimal change in plasma EBV DNA load was observed within six hours of blood sampling to plasma processing time in room temperature. Each line represents one individual and each data point represents an EBV DNA test result from a plasma sample processed at the specified duration. (C) Anti-EBV antibodies test results had ICC ranging from 0.837 to 0.998. Each data point represents one individual and duplicates of plasma aliquots from 43 to 44 individuals were analysed. Samples with undetectable plasma BamHI-W 76bp and plasma EBNA1 99bp were arbitrarily set as 0.001 copy/mL. *CI, confidence interval.*



Supplemental Figure 2. Comparison of BamHI-W tests of different amplicon sizes. BamHI-W 121bp test had increased specificity (less false positive from population control) but decreased sensitivity (less true positive for NPC) as compared to BamHI-W 76bp test. Each dot represents qPCR results from one individual. Samples with undetectable plasma EBV DNA were arbitrarily set as 0.001 copy/mL.



Supplemental Figure 3. Representative decision tree models. Combination of **(A)** VCA IgA or **(B)** EA IgG with BamHI-W 76bp for the classification of NPC and population control. Samples with undetectable plasma BamHI-W 76bp were arbitrarily set as 0.001 copy/mL.