WHAT IS CLAIMED IS:

1. A method of detecting nasopharyngeal carcinoma or a risk of developing nasopharyngeal carcinoma in a test subject comprising:

a. providing a nasopharyngeal sample obtained transorally from the fossae of Rosenmueller of the subject using a brush biopsy,

b. isolating DNA from the sample, and

c. amplifying and detecting at least one EBV target sequence from the DNA using real-time PCR,

wherein a real-time PCR cycle threshold number is verified based on batch specific, plate specific, sample specific, and quantitated EBV DNA controls; and wherein a real-time PCR cycle threshold number of less than or equal to 31.5 is indicative of the test subject having nasopharyngeal carcinoma or a risk of developing nasopharyngeal carcinoma.

2. The method of claim 1, wherein a real-time PCR cycle threshold number of 28 to 31.5 is indicative of the test subject having a risk of developing nasopharyngeal carcinoma.

3. The method of claim 1, wherein a real-time PCR cycle threshold number of less than 28 is indicative of the test subject having nasopharyngeal carcinoma.

4. The method of claim 1 further comprising determining the Epstein-Barr Virus Detection Levels (EDL) wherein an EDL of greater than or equal to 2.57 is indicative of the test subject having nasopharyngeal carcinoma.

5. The method of any one of claims 1 to 4, wherein the nasopharyngeal sample comprises epithelial cells.

6. The method of any one of claims 1 to 5, wherein the at least one EBV target sequence is amplified from 40-60 ng, optionally about 50 ng of DNA.

7. The method of any one of claims 1 to 6, wherein the at least one EBV target sequence is in the EBNA1 gene.

8. The method of any one of claims 1 to 7, wherein the at least one EBV target sequence is amplified using primers corresponding to SEQ ID NO: 1 and 2.

9. The method of claim 6 or 7, wherein the at least one EBV target sequence is detected using a probe corresponding to SEQ ID NO: 4, wherein the probe is labeled with a reporter fluorophore at the 5'- end and a quencher fluorophore at the 3'- end.