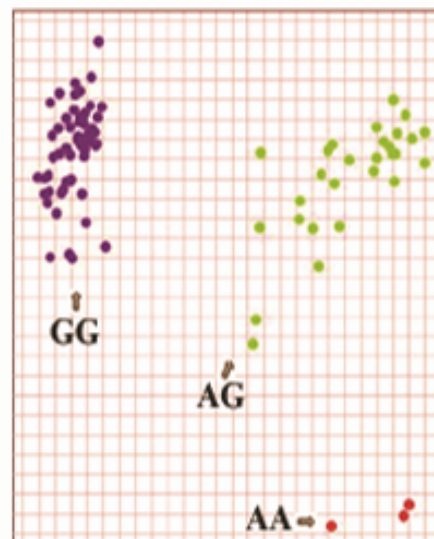
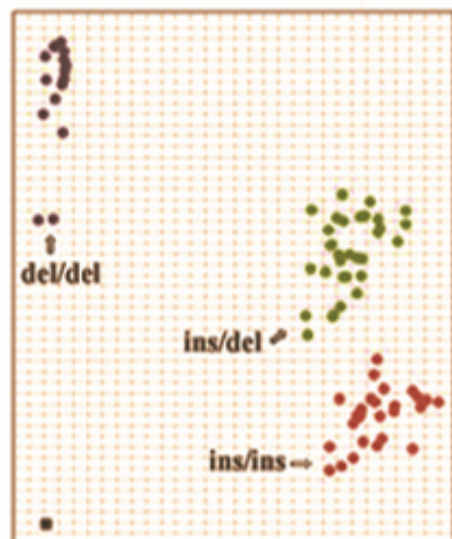


Figure S1

A.

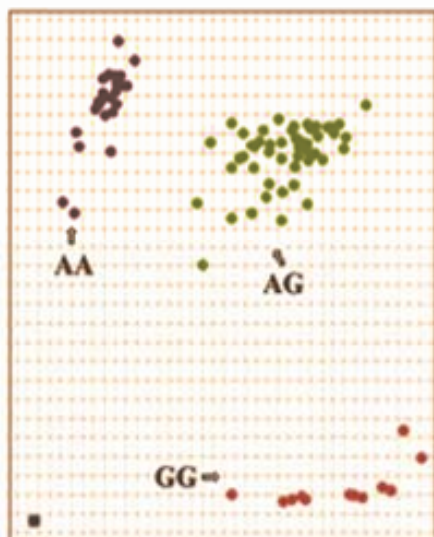
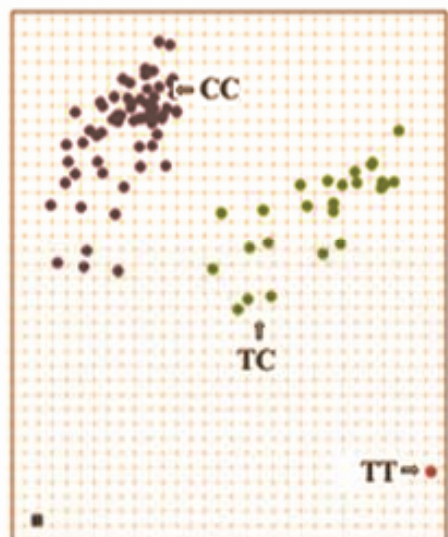
NFκB1 rs28362491 del/ins genotype

NFκB2 rs12769316 G>A genotype



IκBα rs2233406 C>T genotype

IκBα rs696 G>A genotype



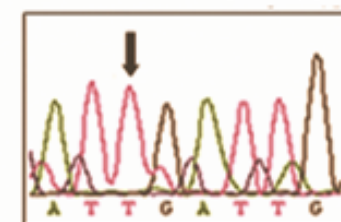
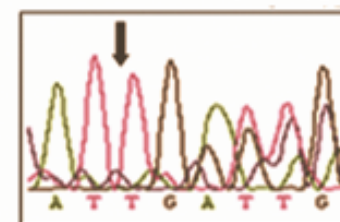
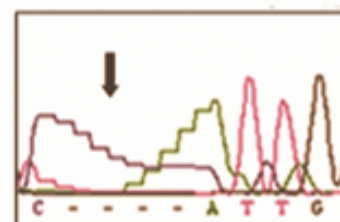
B.

NFκB1 rs28362491 del/ins genotype

del/del ATTG genotype

del/ins ATTG genotype

ins/ins ATTG genotype

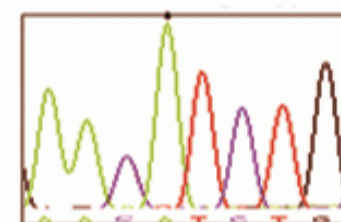
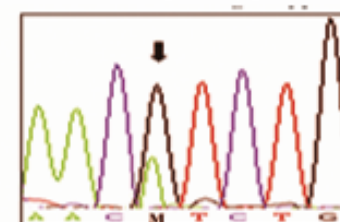
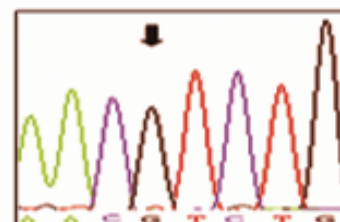


NFκB2 rs12769316 G>A genotype

GG genotype

AG genotype

AA genotype

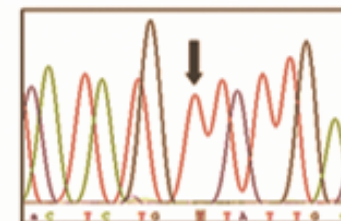
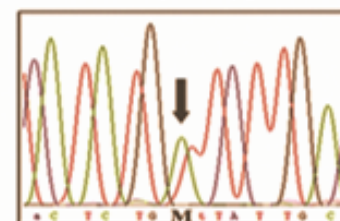
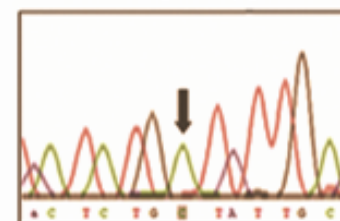


IκBα rs2233406 C>T genotype

CC genotype

TC genotype

TT genotype

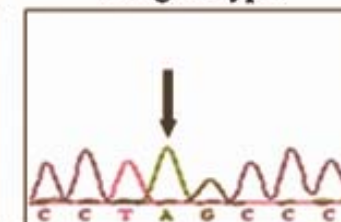
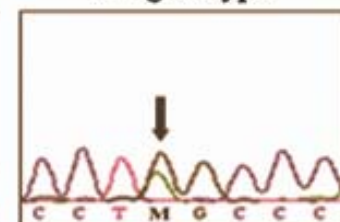
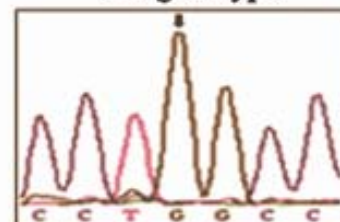


IκBα rs696 G>A genotype

GG genotype

AG genotype

AA genotype



Supplementary Table S1. Primary information on the TaqMan assay of four SNPs in the *NFκB* and *IκBα* genes

| Gene | Position and base change | Primers | Probes | Genotypes |
|--------------|--------------------------|--|---------------------------------------|----------------|
| <i>NFκB1</i> | rs28363491 ins/del ATTG | GCCTCCGTGCTGCCT (Forward) | P1: FAM-TTCCCCGACC ATTGG -MGB | del/del(blue) |
| | | AGGGAAGCCCCCAGGAA (reverse) | P2: HEX-CCCGACC----ATTGATTG-MGB | ins/ins(red) |
| | | | | del/ins(green) |
| <i>NFκB2</i> | rs12769316 G>A | GCCAGTGCAGGCCTGTGATTC (Forward) | P1: FAM-TAAAAAC GTCTGGGGC -MGB | G/G(blue) |
| | | CCTGCCTGGAGTCCTCCTCCCT (reverse) | P2: HEX-AACATCTGGGGCAAGC-MGB | A/A(red) |
| | | | | A/G(green) |
| <i>IκBα</i> | rs2233406 C>T | CGGGAGCACAATGTAGGTCA (Forward) | P1: FAM-CTACTCTGCTATTGCAA-MGB | C/C(blue) |
| | | ATGTTGTAGTGGTGGTTGTGGAT (reverse) | P2: HEX-CTACTCTGTTATTGCAAG-MGB | T/T(red) |
| | | | | C/T(green) |
| <i>IκBα</i> | rs696 G>A | GCTGAAAGAACATGGACTTGTATATTTG (Forward) | P1: FAM-ACTGCCT GGCCCAA -MGB | G/G(blue) |
| | | GGCTGATCCTACCACAATAAGACG (reverse) | P2: HEX-ACTGCCT AGCCCAA -MGB | A/A(red) |
| | | | | G/A(green) |

* Bold nucleotide was the polymorphic site

† Three genotypes were indicated as three types of color dots in Supplementary Figure S1.

Supplementary Table S2. Frequency distributions of selected variables in NPC patients and controls

| Variables | Discovery set (southern Chinese) | | | Validation set (eastern Chinese) | | | |
|--------------------------|----------------------------------|---------------------------|-----------------------|----------------------------------|--------------------------|-----------------------|-----------------------|
| | Case (n=906) n (%) | Control (n=1072) n (%) | <i>P</i> ^a | Case (n=684) n (%) | Control (n=907) n (%) | <i>P</i> ^a | <i>P</i> ^b |
| Age (years) | | | | | | | |
| < 50 | 396(43.7) | 482(45.0) | 0.576 | 266(38.9) | 373(41.1) | 0.368 | 0.758 |
| ≥ 50 | 510(56.3) | 590(55.0) | | 418(61.1) | 534(58.9) | | |
| Sex | | | | | | | |
| Male | 647(71.4) | 763(71.2) | 0.907 | 484(70.8) | 641(70.7) | 0.741 | 0.961 |
| Female | 259(28.6) | 309(28.8) | | 200(29.5) | 266(29.3) | | |
| Family history of cancer | | | | | | | |
| Yes | 88 (9.7) | 83 (7.7) | 0.120 | 77 (11.3) | 88(9.7) | 0.314 | 0.720 |
| No | 818(90.3) | 989(92.3) | | 607(88.7) | 819(90.3) | | |
| Smoking status | | | | | | | |
| Ever | 458(50.6) | 481(44.9) | 0.012 | 397(58.0) | 456(50.3) | 0.002 | 0.531 |
| Never | 448(49.4) | 591(55.1) | | 287(42.0) | 451(49.7) | | |
| Drinking status | | | | | | | |
| Ever | 440(48.6) | 245(22.9) | <0.001 | 339(49.6) | 361(39.8) | <0.001 | <0.001 |
| Never | 466(51.4) | 827(77.2) | | 345(50.4) | 546(60.2) | | |
| EBV Infection Status | | | | | | | |
| Positive | 756(83.4) | 194(18.1) | <0.001 | 483(70.6) | 142(15.7) | <0.001 | 0.001 |
| Negative | 150(16.6) | 878(81.9) | | 201(29.4) | 765(84.3) | | |
| Stages | | | | | | | |
| I | 51 (5.7) | | | 27 (3.9) | | | |
| II | 244(26.9) | | | 177(25.9) | | | |
| III | 377(41.6) | | | 316(46.2) | | | |

IV

234(25.8)

164(24.0)

^a *P* values for χ^2 test. ^b *P* values of homogeneity test for the frequency of case/controls within each valuable between two datasets.