**Supplementary Table 1 Genotype and allele frequencies of rs7234029 in patients and controls stratified by gender**

| Gender | Genotype allele | BD | | Controls | | P Value | Pc Value | OR | 95%CI |
|---|---|---|---|---|---|---|---|---|---|
| | | N | % | N | % | | | | |
| Male | A | 1061 | 0.703 | 1718 | 0.703 | 0.984 | NS | 0.999 | 0.868-1.149 |
| | AA | 335 | 0.444 | 605 | 0.495 | 0.026 | NS | 0.813 | 0.678-0.976 |
| | AG | 391 | 0.518 | 508 | 0.416 | $9.32\times10^{-6}$ | $4.01\times10^{-4}$ | 1.51 | 1.258-1.812 |
| | GG | 29 | 0.038 | 109 | 0.089 | $1.66\times10^{-5}$ | $7.14\times10^{-4}$ | 0.408 | 0.268-0.621 |
| Female | A | 207 | 0.685 | 1375 | 0.719 | 0.228 | NS | 0.851 | 0.654-1.106 |
| | AA | 65 | 0.43 | 497 | 0.52 | 0.041 | NS | 0.698 | 0.494-0.987 |
| | AG | 77 | 0.51 | 381 | 0.399 | 0.01 | NS | 1.57 | 1.113-2.216 |
| | GG | 9 | 0.06 | 78 | 0.082 | 0.351 | NS | 0.713 | 0.350-1.455 |

**Supplementary Table 2 Logistic Regression Analysis of the Risk of BD Patients with PTPN2/rs7234029 in Additive Codominant, Dominant, Allelic, and Recessive Models**

| Model | Genotype | Control (N = 2178) | Case (N = 906) | Univariate logistic regression | | | Multivariate logistic regression [a] | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | OR | 95% CI | $P$ | OR | 95% CI | $P$ [a] |
| Additive | | 2178 70.62 | 906 29.38 | 1.05 | 0.93 1.19 | 0.40 | 1.01 | 0.88 1.15 | 0.88 |
| Co-dominant | AA | 1102 50.60 | 400 44.15 | | | | | | $2.98\times10^{-4}$ |
| | AG | 889 40.82 | 468 51.66 | 1.45 | 1.24 1.70 | $5.30\times10^{-6}$ | 1.38 | 1.16 1.64 | $2.41\times10^{-4}$ |
| | GG | 187 8.59 | 38 4.19 | 0.56 | 0.39 0.81 | $1.95\times10^{-3}$ | 0.52 | 0.35 0.76 | $8.88\times10^{-4}$ |
| Dominant | AA | 1102 50.60 | 400 44.15 | | | | | | |
| | AG+GG | 1076 49.40 | 506 55.85 | 1.30 | 1.11 1.51 | $1.12\times10^{-3}$ | 1.23 | 1.04 1.45 | $1.58\times10^{-2}$ |
| Recessive | AA+AG | 1991 91.41 | 868 95.81 | | | | | | |
| | GG | 187 8.59 | 38 4.19 | 0.47 | 0.33 0.67 | $2.89\times10^{-5}$ | 0.44 | 0.30 0.65 | $2.23\times10^{-5}$ |
| Over-dominant | AA+GG | 1289 59.18 | 438 48.34 | | | | | | |
| | AG | 889 40.82 | 468 51.66 | 1.55 | 1.33 1.81 | $3.66\times10^{-8}$ | 1.49 | 1.26 1.76 | $3.18\times10^{-6}$ |
| Allelic | A | 3093 71.01 | 1268 69.98 | | | | | | |
| | G | 1263 28.99 | 544 30.02 | 1.05 | 0.93 1.18 | 0.42 | 1.01 | 0.89 1.15 | 0.89 |

[a]Adjusted for age and gender in the logistic regression model.