| SNP | Description | Allele |
|-------------------------|--------------|-------------|
| rs35832561 ¹ | 5' near gene | G |
| rs11571315 | 5' near gene | A/G |
| rs4553808 | 5' near gene | A/G, -1661 |
| rs11571316 | 5' near gene | C/T |
| rs231772 ¹ | 5' near gene | G |
| rs231773 ¹ | 5' near gene | А |
| rs11571317 ¹ | 5' near gene | С |
| rs2317741 ¹ | 5' near gene | А |
| rs5742909 ³ | 5' near gene | C/T, -318 |
| rs231775 | exon_1 | A/G, +49G>A |
| rs231776 ¹ | intron_1 | G |
| rs231777 | intron_1 | C/T |
| rs231778 ¹ | intron_1 | А |
| rs35219727 | intron_1 | A/G |
| rs231779 | intron_1 | C/T |
| rs35703452 ¹ | intron_1 | DEL |
| rs1065442 ¹ | exon_2 | Т |
| rs41265959 ¹ | intron_2 | Т |
| rs41265961 ² | intron_2 | G/A |
| rs231780 ¹ | intron_2 | А |
| rs11571324 ¹ | intron_2 | G |
| rs34162447 ³ | exon_3 | A/G |
| rs13384548 ¹ | exon_3 | G |
| rs35411154 ¹ | exon_3 | G |
| rs231721 ¹ | 3' near gene | Т |
| rs3087243 ³ | 3' near gene | A/G, CT60 |
| rs231722 ¹ | 3' near gene | Т |
| rs231723 | 3' near gene | A/G |
| rs35902238 ¹ | 3' near gene | DEL |
| rs10197010 | 3' near gene | A/C |
| rs3087245 ² | 3' near gene | C/T |
| rs231725 | 3' near gene | A/G |
| rs34227960 ¹ | 3' near gene | DEL |
| rs231726 ³ | 3' near gene | C/T |
| rs10932024 ¹ | 3' near gene | Т |
| rs3087246 ³ | 3' near gene | C/T |
| rs231727 ³ | 3' near gene | A/G |
| rs11571302 | 3' near gene | C/A, JO31 |
| rs35541017 ¹ | 3' near gene | DEL |
| rs35720565 ¹ | 3' near gene | С |
| rs7565213 ² | 3' near gene | A/G, JO30 |
| rs231729 | 3' near gene | A/T |
| rs231730 | 3' near gene | T/A |
| rs5837885 ¹ | 3' near gene | DEL |
| rs231731 | 3' near gene | C/T |
| rs10932025 | 3' near gene | G/C |
| rs11571297 ³ | 3' near gene | A/G, JO27 |

Table S1 47 SNPs selected in CTLA4 gene region from the NCBI dbSNP and quality control filters

Note: ^{1, 2,3} showed the SNPs loci were removed from the analysis respectively because of MAF <1%, missing data above 20% and Hardy-Weinberg Equilibrium (HWE) $p \le 1 \times 10^{-6}$ in controls.