

Supplementary appendix

Appendix S1. Primer design for PD-L1 promoter region. The genomic sequence of programmed death-ligand 1 (PD-L1; accession no. NC_000009.12, *homo sapiens* chromosome 9, grch38.p14 primary assembly) was downloaded from the National Center for Biotechnology Information (NCBI) database (<https://www.ncbi.nlm.nih.gov/gene/29126>). According

to the NCBI data, the FASTA sequence of PD-L1 is from position 5450542-5470554 and the promoter region is typically 2.5 kb upstream of the gene, therefore the sequence of 5448041-5450541 was divided into seven parts and seven pairs of primers for these sequences were designed, respectively. NCBI-Basic Local Alignment Search Tool (<https://blast.ncbi.nlm.nih.gov/Blast.cgi>) was used to perform sequence alignment.