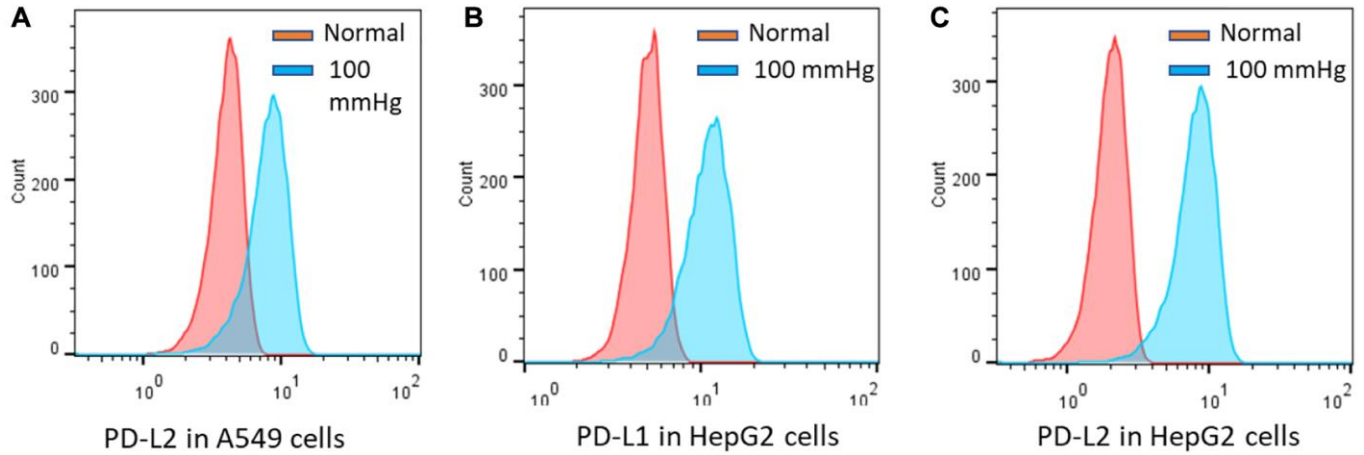
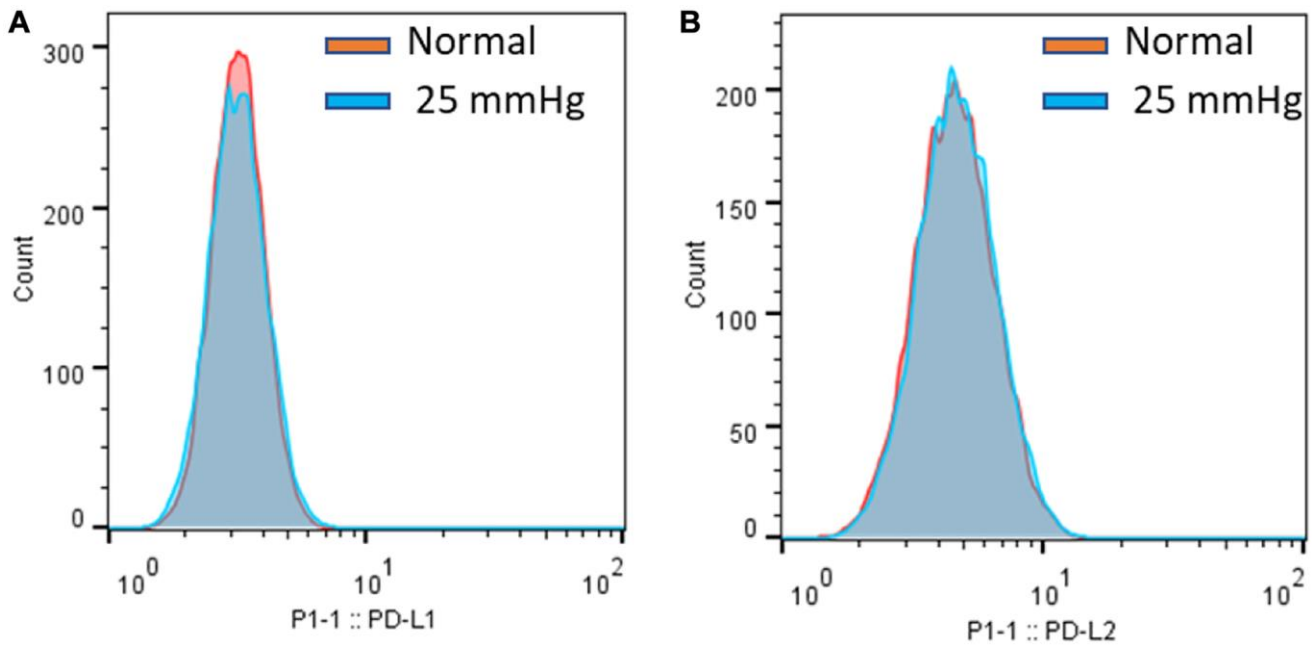


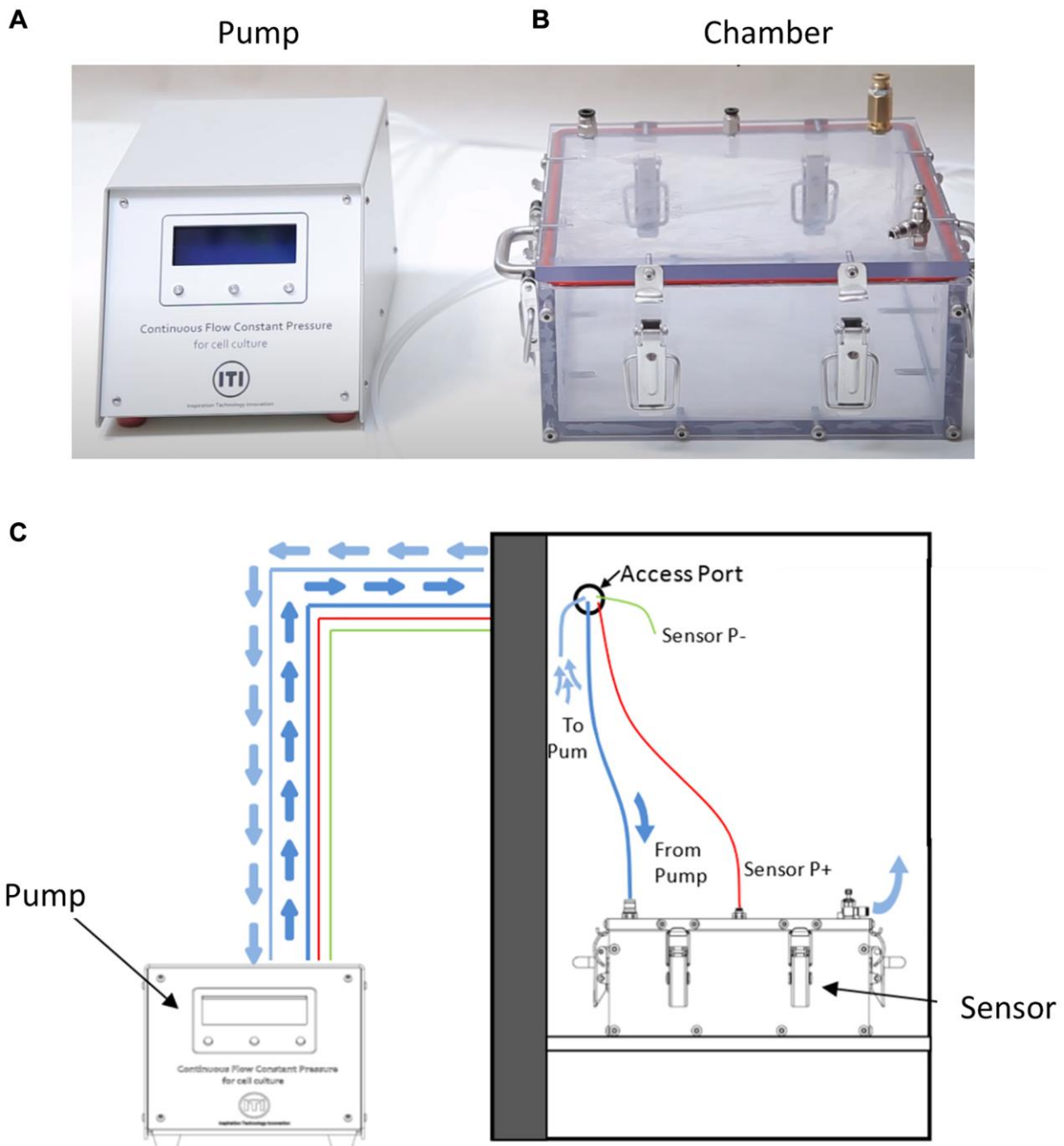
SUPPLEMENTARY FIGURES



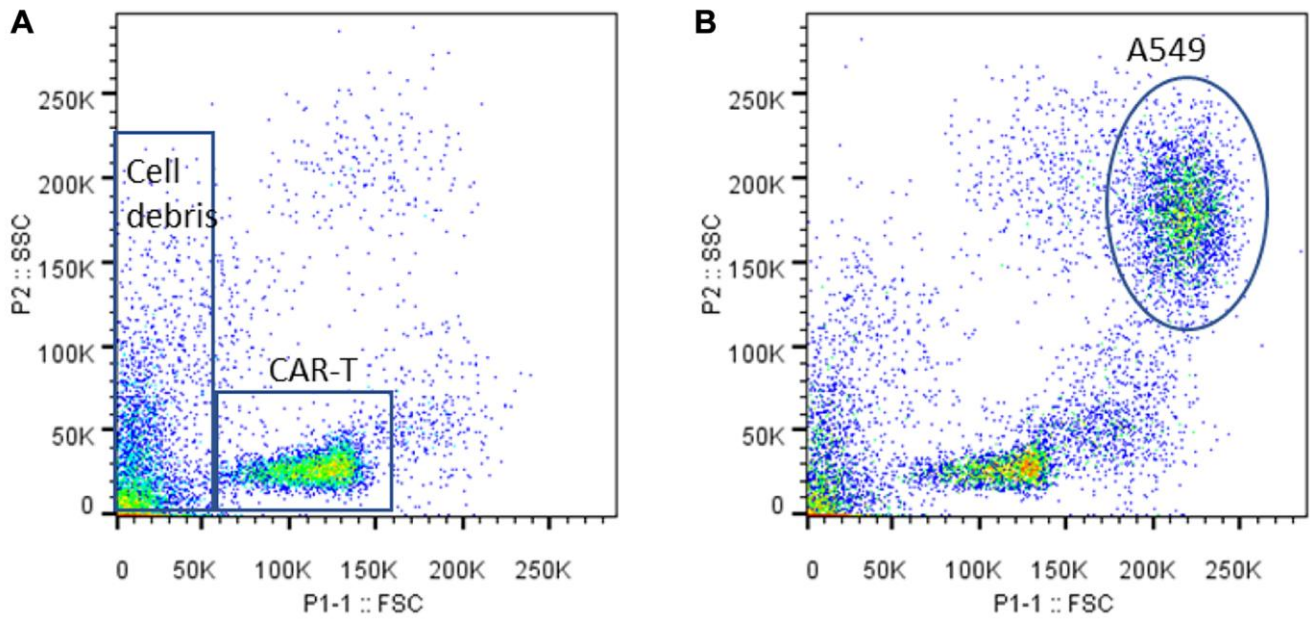
Supplementary Figure 1. PD-L1 and PD-L2 expression elevated in HepG2 cells and A549 cells. (A) Expression PD-L2 in A549 was elevated by 100 mmHg. (B–C) Expression of PD-L1 and PD-L2 was elevated in HepG2 hepatocellular carcinoma cells. PD-L1 and PD-L2 expression were detected by specific antibodies and quantified by using flow cytometry. Data were presented in histogram by using Flowjo software.



Supplementary Figure 2. Pressure at 25 mmHg did not affect PD-L1 (A) and PD-L2 (B) expression. PD-L1 and PD-L2 expression were detected by specific antibodies and quantified by using flow cytometry. Data were presented in histogram by using Flowjo software.



Supplementary Figure 3. Pressure control system. (A) Sensor-controlled pump (control unit). (B) Pressured chamber (Cell culture vessel). (C) The working mechanism. The pump continuously pumps air from the incubator into the pressurized chamber in the incubator (blue line). A sensor is inserted in the chamber, which serves to automatically switch on/off the pump (line).



Supplementary Figure 4. Size gating to remove remaining T cells from A549 cancer cells. T cells were strongly attached to A549 cells and were not readily removed by washing with PBS. To further remove the attaching T cells, A549 cells were trypsinized and gated through size difference in flow cytometry analysis. (A) CAR T cells only control. (B) A549 cells from CAR T cytotoxicity assay. FSC, forward scattering. SSC, side scattering.