



**Supplementary Figure 1.** Expression of immune checkpoint proteins and cancer-specific survival. None of the immune checkpoint proteins was significantly associated with cancer-specific survival (all  $P > 0.05$ ). (A) iCTLA4, (B) iPD-1, (C) iPD-L1, and (D) tPD-L1. HCC, hepatocellular carcinoma; iCTLA-4, cytotoxic T lymphocyte antigen-4 in tumor-infiltrating mononuclear cells; iPD-1, programmed-cell death-1 in tumor-infiltrating mononuclear cells; iPD-L1, programmed-cell death ligand-1 in tumor-infiltrating mononuclear cells; tPD-L1, programmed-cell death ligand-1 in tumor cells.