



S1 Fig. CD13 regulates metabolic reprogramming in CD13⁺ cancer stem cells (CSCs) from hepatocellular carcinomas (HCCs). (A) The ratio of lactate to glucose in CD13⁻ and CD13⁺ cells sorted from HepG2 and HuH7 cells. (B) Apoptosis in HepG2-derived CD13⁻ cells was determined 72 hours after deprivation of essential nutrients. (C) Schematic diagram of enzymes and metabolic intermediates in Tyr degradation pathway. (D) Tyr consumption in HuH7-derived CD13⁺ cells pre-treated with CD13 shRNA or scrambled shRNA. (E) The ratio of lactate to glucose in HepG2 and HuH7-derived CD13⁺ fraction pre-treated with CD13 shRNA or scrambled shRNA for 6 hours. (F) Tyr consumption in HuH7-derived CD13⁻ cells overexpressing Flag-CD13. (G) The ratio of lactate to glucose in HepG2 and HuH7-derived CD13⁻ cells overexpressing Flag-CD13. Values shown are mean±standard deviation. p-values were calculated by two-tailed t test unless otherwise indicated. **p < 0.05.