



**Fig. S1 Determination of glycolytic intermediate(s) that inversely correlates with phosphorylation of p53-Ser46.** a-c Inhibition of hexokinases triggers p-p53-Ser46. HEK293 (a), SK-Hep-1 (b) or human primary HCC (c) cells were treated with 1 mM lonidamine (a), 5 mM 2-DG (b, c), or glucose starved (a-c), all for 2 h, followed by immunoblotting for p-p53-Ser46. d AMPK does not phosphorylate p53-Ser46. HEK293 cells with knockout of both *AMPKα1* and *AMPKα2* were treated with 2 mM AICAR or phenformin for 2 h, followed by immunoblotting for p-p53-Ser46. e, f Pentose phosphate pathway and hexosamine shunts of glycolysis are not involved in the phosphorylation of p53-Ser46. HEK293 cells (f) or HEK293 cells with *G6PD* knockdown (e) were glucose starved, or treated with 10 mM of N-acetyl-glucosamine (GlcNAc; f), both for 2 h, followed by immunoblotting for p-p53-Ser46. g Glucose starvation does not change intracellular amino acids and pyruvate levels. HEK293 cells were glucose starved for 2 h, followed by determination of levels of amino acids and pyruvate by GC-MS; data are means ± SEM, n = 3-8, with p values calculated by one-way ANOVA, followed by Tukey). h PGK and PGAM do not interact with p53. HEK293 cells were glucose starved for 2 h, followed by immunoprecipitation using anti-p53 antibody and immunoblotting of PGK1, PGK2, PGAM1 and PGAM2. Experiments in this figure were performed three times.