Figure S1. Validation of transfection efficiency for YTHDF1 and PGAM1 modulations in A549 and PC9 cells. (A) Western blot analysis confirming the efficient knockdown of YTHDF1 in A549 and PC9 cells transfected with si-YTHDF1 or si-NC. (B) Western blot analysis of YTHDF1 protein levels in A549 and PC9 cells infected with lentiviral constructs expressing sh-NC or sh-YTHDF1. This validation supports the RNA stability assays shown in Fig. 3E and F. (C) Western blot analysis confirming efficient knockdown of PGAM1 in A549 cells infected with lentiviral sh-PGAM1 or control sh-NC (non-targeting). This PGAM1-knockdown A549 cell model was used in the extracellular acidification rate and oxygen consumption rate assays presented in Fig. 4F and G. Western blot analysis confirming successful (D) overexpression and (E) knockdown of PGAM1 in both A549 and PC9 cells. Cells were transfected with oe-PGAM1 plasmid or si-PGAM1, respectively, while control cells were transfected with empty vector or si-NC (non-targeting). PGAM1 expression was significantly increased in the oe-PGAM1 groups and markedly reduced in the si-PGAM1 groups compared with the respective controls, demonstrating effective genetic modulation in both cell lines. This validation confirms the efficacy of PGAM1 modulation for the experiments shown in Fig. 5A, where the impact of PGAM1 overexpression or knockdown on glucose transporter type 1 protein expression was evaluated. β-actin was used as a loading control. **P<0.01, ***P<0.001 and ****P<0.0001. NC, negative control; oe, overexpression; PGAM1, phosphoglycerate mutase 1; sh, short hairpin RNA; si, small interfering RNA; YTHDF1, YTH N^6-methyladenosine RNA binding protein 1.