

# Supplemental Figure

## Supplementary Figure S1.

Fig S1

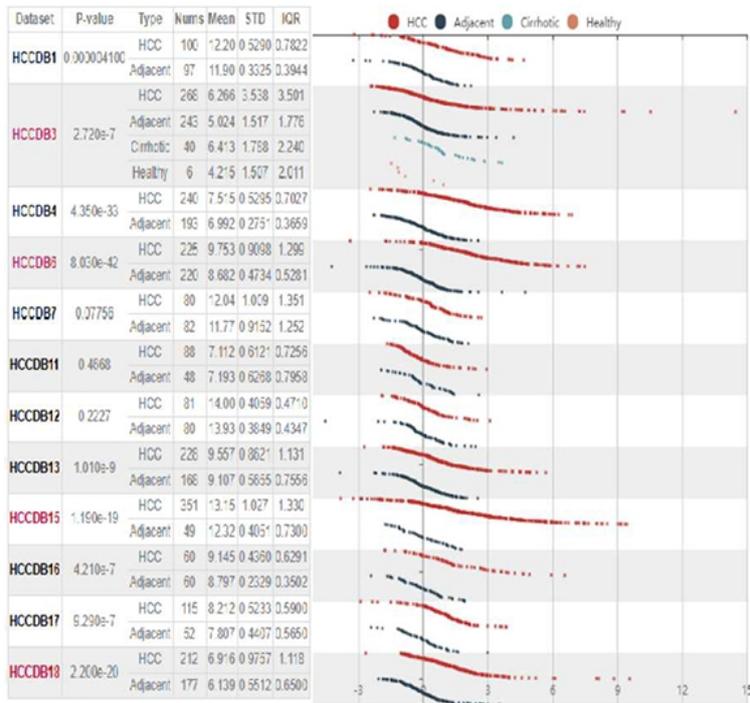


Fig. S1. According to t test in HCCDB, the expression of ALDOA in tumor tissue and adjacent normal tissue was revealed.

## Supplementary Figure S2.

Fig. S2

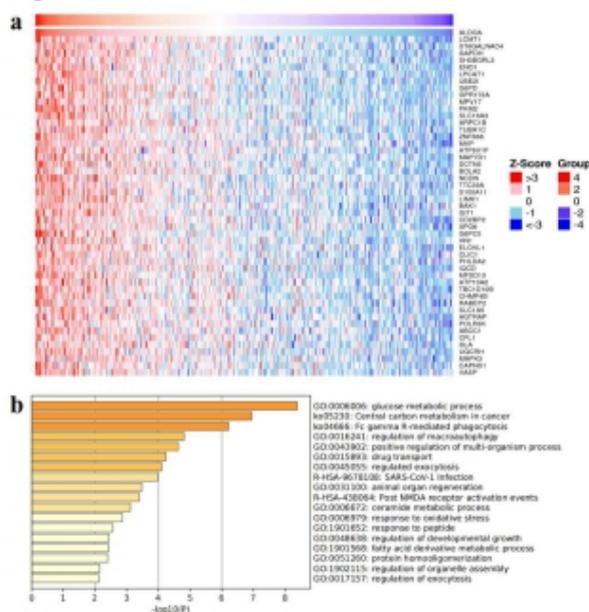


Fig. S2. ALDOA co-expression genes in HCC (LinkedOmics). (a) Heat maps showing top 50 genes positively

correlated with ALDOA in LIHC. (b) Functional enrichment analysis of ALDOA in the LIHC cohort.

### Supplementary Figure S3.

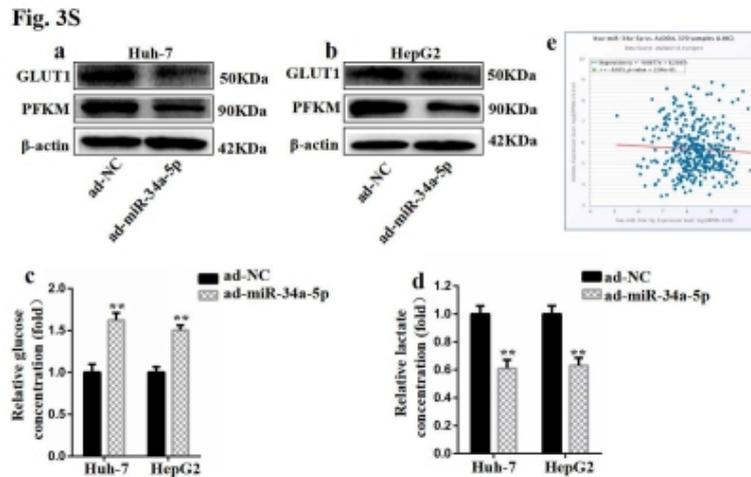


Fig. S3. MiR-34a-5p targets ALDOA inhibits aerobic glycolysis of HCC cells. (a, b) WB detection of aerobic glycolysis-related protein expression levels after overexpression of miR-34a-5p. (c, d) Glucose and lactate levels in the culture medium supernatants of two HCC cell lines after overexpression of miR-34a-5p were detected by the kit. (e) Correlation analysis showing a negative correlation between miR-34a-5p and ALDOA expression.

### Supplementary Figure S4.

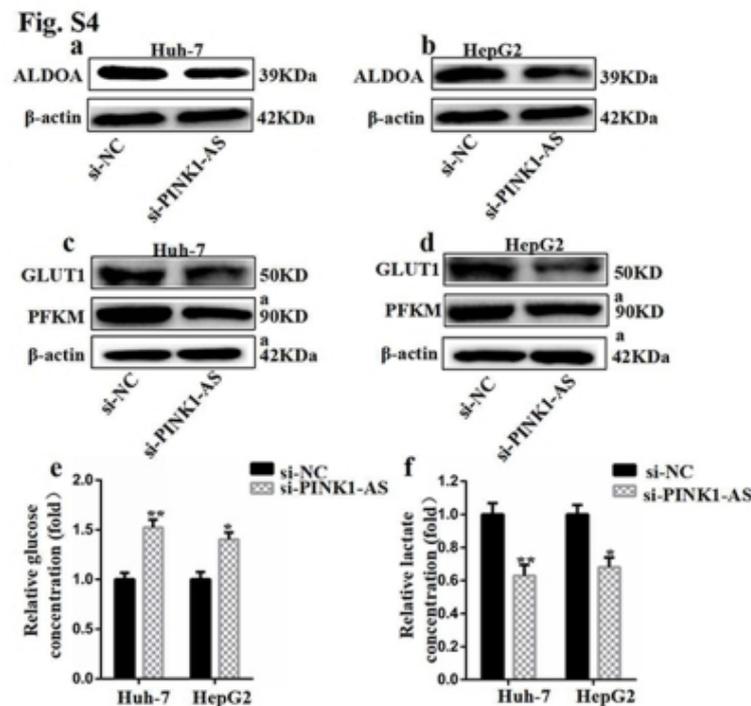


Fig. S4. PINK1-AS targets miR-34a-5p promote aerobic glycolysis of HCC cells. (a, b) Down-regulation of ALDOA levels in PINK1-AS-silenced Huh-7 cells and HepG2 cells was detected by RT-qPCR. (c, d) WB detection of aerobic glycolysis-related protein expression levels after knockdown of PINK1-AS. (e, f) Glucose and lactate levels in the culture medium supernatants of two HCC cell after knockdown of PINK1-AS were detected by the kit.

## Supplementary Figure S5.

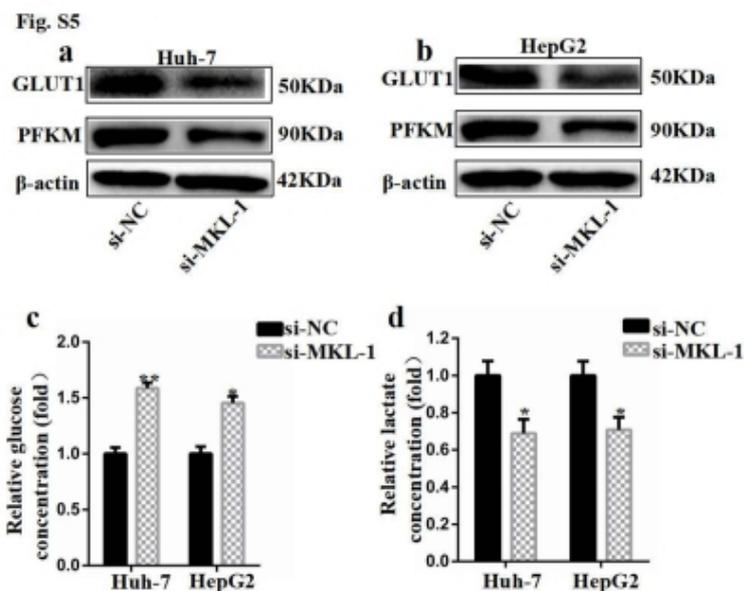


Fig. S5. MKL-1 promotes the aerobic glycolysis process of HCC cells. (a, b) WB detection of aerobic glycolysis-related protein expression levels after knockdown of MKL1. (c, d) Glucose and lactate levels in the culture medium supernatants of two HCC cell after knockdown of PINK1-AS were detected by the kit.

## Supplementary Tables

**Supplementary Table 1: Primers of qRT-PCR**

$\beta$ -actin	Forward	5'-CATGTACGTTGCTATCCAGGC-3'
	Reverse	5'-CTCCTTAATGTCACGCACGAT-3'
ALDOA	Forward	5'-ATGCCCTACCAATATCCAGCA-3'
	Reverse	5'-GCTCCCAGTGGACTCATCTG-3'
PINK1-AS	Forward	5'-CCGATTGTTGGAGGAGCCAG-3'
	Reverse	5'-AGCAGGCTTTGGGTTGAGAC-3'
MKL1	Forward	5'-ATGCCGCCTTTGAAAAGTCCA-3'
	Reverse	5'-TCTTCCGTTTGAGATAGTCCTCT-3'
miR-34a-5p	Forward	5'-ACACTCCAGCTGGGTGGCAGTGTCTTAGC-3'
	Reverse	5'-CTCAACTGGTGTTCGTGGAGTCGGCAATTCAGTTGAGACAACCA-3'
U6	Forward	5'-CTCGCTTCGGCAGCACA-3'
	Reverse	5'-AACGCTTTCACGAATTTGCGT-3'

**Supplementary Table 2: Sequence of siRNAs, shRNAs, miR-34a-5p inhibitor and miR-34a-5p mimics.**

siALDOA-1	5'-GACAAATGGCGAGACTACCACCAA-3'
siALDOA-2	5'-CCAGTATCTGCCAGCAGAATGGCAT-3'
shALDOA-1	5'-CCGGGCATCCATCAACCTCAATGCTCTCGAGAGCATTGAGTTGATGGATGCTTTTTG-3'

shALDOA-1	5'-CCGGGCCAATGTTCTGGCCCGTTATCTCGAGATAACGGGCC AGAACATTGGCTTTTTG-3'
siPINK1-AS-1	5'-AATGAAGATGCTCTTTCTGGC-3'
siPINK1-AS-2	5'-AATATAAAGGAATGCAAAGGC-3'
SiPINK1-AS-3	5'-AGAAAAGGAGGCATTTTTGAG-3'
siMKL-1-1	5'-ACTCTACTGGAACCTGAGATGTAA-3'
siMKL-1-2	5'-GACTCTACTGGAACCTGAGATGTAA-3'
miR-34a-5p inhibitor	5'-ACAACCAGCUAAGACACUGCCA-3'
miR-34a-5p mimics	5'-UGGCAGUGUCUUAGCUGGUUGU-3'

**Supplementary Table 3: Sequence of Chip**

ALDOA	Forward	5'-TGATGGACAGAAAAATGTGTGTGCT-3'
	Reverse	5'-GGGTACTGTCCATCATTCCCAGGAA-3'
PINK1-AS	Forward	5'-AGCTGTGGCTCAGACCCAGAAGGGG-3'
	Reverse	5'-TTCCCCACATGTCCACTGAATGCA-3'