

Table SI. Differentially expressed mRNAs related to glycolysis in angiotensin-induced rat renal artery endothelial cells compared with controls.

mRNA	Fold-change	Function
FBP1	0.162465749	Low expression of fructose-1,6-bisphosphatase 1 (FBP1) may inhibit the hydrolysis of fructose-1,6-diphosphate to 6-acid fructose and inorganic phosphate, thereby promoting glycolysis (39).
LDHB	0.647937602	LDHB inhibition may restrain the oxidation of lactate to pyruvate, which in turn leads to increased levels of glycolysis (40).
PCK1	0.175596928	PCK1 inhibition may promote the production of pyruvic acid, lactate, citrate, and malate, representing the acceleration of glycolysis process (41).
G6PC	0.244597401	G6PC inhibition may restrain the hydrolysis of G-6-P to glucose, which is the last step in the process of gluconeogenesis and glycogen degradation, and promotes glycolysis to some extent (42).
ALDOB	0.15751926	Low expression of ALDOB may inhibit the conversion of fructose phosphate to glyceraldehyde and dihydroxyacetone phosphate (DHAP), which is unfavorable to the activation of glycolysis (43).
PKLR	1.69730959	PKLR may remove the phosphate from phosphoenolpyruvate (PEP), and produce pyruvate and ATP (44).
ENO2	1.848282789	ENO2 may promote the conversion of $\beta$ -glycerophosphate into dihydroxyacetone phosphate, inducing cell glycolysis (45).
PGK1	1.720029616	PGK1 may catalyze the transfer of the high-energy phosphate from the 1-position of 1,3-diphosphoglycerate (1,3-BPG) to ADP, which leads to the generation of 3-phosphoglycerate (3-PG) and ATP promoting glycolysis (46).

Table SII. Differentially expressed miRNAs that have predicted or published target mRNAs related to glycolysis in angiotensin II-induced rat renal artery endothelial cells compared with controls.

miRNAs	Fold-change	Gene targets	Function	(Refs.)
rno-miR-137-3p	4.428571428	PFKP	Knockdown of PFKP may significantly suppress lactate production and amino acids biosynthesis from phosphoenolpyruvate and pyruvate, thereby promoting glycolytic activity (47).	Predicted
rno-miR-33-3p	2.06849315	G6PC	G6PC inhibition may restrain the hydrolysis of G-6-P to glucose, which is the last step in the process of gluconeogenesis and glycogen degradation, and promote glycolysis to some extent (48).	Predicted
rno-miR-6216	5.172413792			Predicted
rno-miR-7b	12.44444445	ALDOB	Low expression of ALDOB may inhibit the reversible conversion of fructose-1,6-bisphosphate into dihydroxyacetone phosphate and glyceraldehyde-3-phosphate (49).	Predicted
rno-miR-203a-3p	5.870866142			
rno-miR-7b	12.44444445	LDHB	LDHB inhibition may restrain the oxidation of lactate to pyruvate, which in turn leads to increased levels of glycolysis (40).	Predicted
rno-miR-215	6.103448276			
rno-miR-192-5p	1.678182302	Aldh1a1	Aldh1a1 inhibition may reduce esterase activity and inhibit oxidation of toxic acetaldehyde to acetic acid (50).	Predicted
rno-miR-133a-3p	5.624999999			
rno-miR-141-3p	8			
rno-miR-200a-3p	1.555709343			
rno-miR-200b-3p	1.753156057			

Table SIII. Differentially expressed mRNAs related to autophagy in angiotensin II-induced rat renal artery endothelial cells compared with controls.

mRNA	Fold-change	Function
DAPK1	2.034414876	Expression of DAPK1 may lead to the enhanced formation of autophagosomes in various cell types, which can induce autophagy (51).
IRS3	8.137557499	Irs3 may modulate mTOR by type 1 PI3K, thereby activating autophagy (52).

Table SIV. Differentially expressed miRNAs that have predicted or published target mRNAs related to autophagy in angiotensin II-induced rat renal artery endothelial cells compared with controls.

miRNAs	Foldchange	Gene targets	Function	(Refs.)
rno-miR-223-3p	1.662100457	IGF1R	IGF1R inhibition led to a striking decrease in phosphorylation of mTOR and Akt, down-regulation of Bcl-2, up-regulation of Bax and cleavage of caspase 3 and PARP. Meanwhile, IGF1R inhibition induced autophagy (53).	Predicted
rno-miR-20a	0.166666667	ULK1	ULK1 inhibition may affect Beclin-1 phosphorylation on Ser 14, thereby suppressing the activity of the ATG14L-containing VPS34 complexes (54).	Predicted
rno-miR-133a-3p	5.624999999	MTMR4	MTMR4 knockdown may decrease both autophagosomes and autolysosomes and markedly increase PI(3)P-containing autophagosomes and late endosomes, suggesting that the fusion with lysosomes of autophagosomes and late endosomes might be impaired (55).	Predicted
rno-miR-137-3p	4.428571428	Atg14	Low expression of Atg14 is not conducive to autophagosome-endolysosome fusion, thereby blocking the autophagic flow, which in turn affects the regulation of the size of the involved autophagosome (56).	Predicted
rno-miR-192-5p	1.678182302			
rno-miR-205	7.074074075			
rno-miR-215	6.103448276			
rno-miR-133a-3p	5.624999999	PRKCD	Low expression of PRKCD may impede AKT phosphorylation and inhibit mTOR, which in turn impairs ULK1 phosphorylation, thereby promoting autophagy-inducing complex formation and enhancing autophagy (57).	Predicted
rno-miR-141-3p	2.962655602	Gabarapl2	Low expression of Gabarapl2 may affect its recruitment to autophagosomes on induction of autophagy (58).	Predicted
rno-miR-145-5p	3.207417582			
rno-miR-200a-3p	1.555709343			
rno-miR-200b-3p	1.753156057			
rno-miR-200c-3p	4.228571429			
rno-miR-205	7.074074075			
rno-miR-429	1.512837612			
rno-miR-6216	5.172413792			
rno-miR-203a-3p	5.870866142			
rno-miR-203a-3p	5.870866142			
rno-miR-1b	4.111801243	Atg13	Knockdown of Atg13 may affect autophagy induction and inhibit autophagosome formation (60).	Predicted
rno-miR-143-3p	2.932796048	Rraga	Low expression of Rraga may downregulate mTOR phosphorylation and upregulate autophagy (61).	Predicted
rno-miR-33-3p	2.06849315	mTOR	mTOR knockdown may negatively regulate ULK kinase activity, thereby enhancing autophagy induction (62).	Predicted
rno-miR-223-3p	1.662100457			
rno-miR-141-3p	2.962655602	Map3k7	RNAi-mediated depletion of MAP3K7 significantly inhibits autophagosome formation in response to the block in ITGA3 function (63).	Predicted
rno-miR-200a-3p	1.555709343			
rno-miR-205	7.074074075			
rno-miR-449a-3p	5.199999999			
rno-miR-143-5p	4.684931507	Hif-1a	Down-regulation of Hif-1a may suppress cell autophagy (64).	Predicted
rno-miR-203a-3p	5.870866142	Zfyve16	Low expression of Zfyve16 may be not conducive to vesicle transport (65).	Predicted
rno-miR-205	7.074074075			
rno-miR-133a-3p	5.624999999	Atg4b	The inhibition of Atg4b may ultimately promoting lipidation of Atg8 (LC3) and enhancing autophagy (66).	Predicted
rno-miR-133a-3p	5.624999999	Bcl211	Low expression of Bcl211 may affect nucleation of autophagic vesicles and induce the activation of autophagy (67).	Predicted
rno-miR-205	7.074074075			
rno-miR-200a-3p	1.555709343			
rno-miR-200b-3p	1.753156057			
rno-miR-200c-3p	4.228571429			
rno-miR-429	1.512837613			