

mice



Supplementary Table 1 siRNA and shRNA sequences

Gene	5'-3'
<i>NIPSNAP1 siRNA</i>	CCAGGAACCAUGAUCGAGUTT
<i>IGF2BP2 siRNA</i>	ACAGGACUGUCCGUGCUAUTT
<i>NIPSNAP1</i>	AAGGTATATTGCTGTTGACAGTGAGCGGATGCCT
<i>shRNA</i>	ACAACAGTCTGATAGTGAAGCCACAGATGTATC AGACTGTTGTAGGCATCTGCCTACTGCCTCG

Supplementary Table 2 Antibody information

Antibody	Manufacture	Cat. No.
Anti-NIPSNAP1	ABclonal	A17951
Anti-NIPSNAP1	Santa Cruz	Sc-515197
Anti-IGF2BP2	Proteintech	11601-1-AP
Anti-Albumin	Boster	BM4963
Anti-p62	Proteintech	18420-1-AP
Anti-LC3 II/I	Proteintech	14600-1-AP
Anti-FIS1	Proteintech	10956-1-AP
Anti-MFN2	Proteintech	12186-1-AP
Anti-Drp1	Proteintech	12957-1-AP
Anti-p-Drp1 ^{ser616}	Cell Signaling Technology	3455
Anti- β -actin	Bimake	A5092

Supplementary Table 3 Primer sequences

Gene	Forward primer	Reverse primer
<i>h-β-actin</i>	GGGAAATCGTGCGTGACATT	GGAACCGCTCATTGCCAAT
<i>m-β-actin</i>	AGAGGGAAATCGTGCGTGAC	CAATAGTGATGACCTGGCCGT
<i>h-NIPSNAP1</i>	GTGGCTACCCAGCCCTCAT	TTCTGGGCTGTGGCTCATT
<i>m-NIPSNAP1</i>	GAAGGAACGGAGCAAGATGCT	GTTTCCCCATTCAATCATGGTT
<i>h-IGF2BP2</i>	AGAGAAGCCTGTCACCATCCA	CTTCCAACCAAGCCATTGTGT

Supplementary Table 4 The 95% confidence interval of alanine aminotransferase and aspartate aminotransferase

ALT	95% CI
Group AAV9-shRNA-NC	7.48-16.79
Group AAV9-shRNA-NC+I/R	100.57-187.85
Group AAV9-shRNA-NIPSNAP1+I/R	166.13-265.26
AST	95% CI
Group AAV9-shRNA-NC	2.03-9.84
Group AAV9-shRNA-NC+I/R	33.06-66.54
Group AAV9-shRNA-NIPSNAP1+I/R	79.33-119.11

Supplementary Table 5 SRAMP predictions of m6A sites on NIPSNAP1 mRNA

#	Position	Sequence context	Structural context	Local structure visualization	Score(binary)	Score(knn)	Score(spectrum)	Score(combined)	Decision
1	381	GGUGG CUACC CAGCC CUCAU GGA <u>CU</u> GCAUG AACAA GCUCA AAAAC	PPPPM MMMMP PPPP IIIII PP <u>PPP</u> IIIII IIIII P MMMM		0.729	0.680	0.473	0.624	m ⁶ A site (High confidence)
2	536	UCCCA ACAUC UAUGA GCUGA GGA <u>CA</u> UACAA GCUCA AGCCA GGAAC	PPPPP MMMMM MMPPP PPPII PHHHH HHMP PPPPP M PPMP		0.623	0.569	0.539	0.586	m ⁶ A site (Moderate confidence)
3	930	GUUUU GUCUU GGCUC UGGGA GGA <u>CU</u> CUGAG GGGCA GUGCU CAGUU	PPPPM MPPPP PPPM PPPPP PP <u>PPP</u> PIPPP PPPPP PPMMP PPPPP		0.691	0.616	0.603	0.652	m ⁶ A site (High confidence)
4	966	UGCUC AGUUC AGACA AGGGG GA <u>ACU</u> GAAGG CUGAC AAGUU CUGAG	PMMPP P IIIPH HHHPI PP <u>PPP</u> PPMP PPPII IPPPP PPPPP		0.635	0.559	0.615	0.623	m ⁶ A site (High confidence)
5	1283	CACUG GGCCA CCCAC UUGCU GGA <u>CA</u> GUCUG AGCCA AGUCC CUCCU	IIPPP P MPPH HHHHP P PPPP PPPPM M PPPH		0.622	0.624	0.608	0.616	m ⁶ A site (Moderate confidence)
6	1324	UCCUG CUGGA GAAAA GCCUG GA <u>ACU</u> GCCAA AACAA AAAAA CAAUU	PPPHH HHPPP P MMMP PHHHH HPPPM MMMMM M MMMM		0.629	0.536	0.516	0.579	m ⁶ A site (Low confidence)
7	1464	AGGAG ACAGA CACGU AACAG GA <u>ACU</u> CGGAA GGUAG AACUU AGAAU	PPPII P MMMM MMMM PP <u>IIP</u> PIIPP PHHHH HHPPP IPPIP		0.599	0.475	0.566	0.579	m ⁶ A site (Low confidence)
8	1478	UACA GGAAC UCGGA AGGUA GA <u>ACU</u> UAGAA UUCAG AACUU GGGUU	MMMMM M M MPPPP PP <u>IIP</u> PPPII PPPPP P PPPP		0.632	0.511	0.561	0.598	m ⁶ A site (Moderate confidence)
9	1492	AAGGU AGAAC UUAGA AUUCA GA <u>ACU</u> UGGGU UUCAA UUGUA GAAUU	MMPPP PPPIP PPPI IPPPP PP <u>PPP</u> PPPPP PBBBB P PMMP		0.632	0.517	0.524	0.583	m ⁶ A site (Low confidence)

Supplementary Table 6 Effects of IGF2BPs on NIPSNAP1 mRNA stability

GeneName	shNs_exp	shIGF2BP1_exp	shIGF2BP2_exp	shIGF2BP3_exp
<i>NIPSNAP1</i>	82.07	79.93	16.14	94.61

Supplementary Table 7 The 95% confidence interval of alanine aminotransferase and aspartate aminotransferase

ALT	95% CI
Group AAV9-shRNA-NC	9.28-15.09
Group AAV9-shRNA-NC+I/R	109.00-176.55
Group AAV9-TBG-IGF2BP2+I/R	90.71-105.70
Group AAV9-TBG-IGF2BP2+I/R+AAV9-shRNA-NIPSNAP1	116.88-179.52
AST	95% CI
Group AAV9-shRNA-NC	3.53-8.99
Group AAV9-shRNA-NC+I/R	35.57-50.06
Group AAV9-TBG-IGF2BP2+I/R	25.83-34.00
AAV9-TBG-IGF2BP2+I/R+AAV9-shRNA-NIPSNAP1	37.46-52.63