

Electronic supplementary information

Biochemical parameters of STZ-induced diabetic mice treated with riclin (Table S1);

Primer sequences used in quantitative RT-PCR analysis (Table S2); Effect of riclin on

STZ-induced MIN6 cell damage (Figure S1); The intervention of mannan inhibited

the protective effect of Riclin on MIN6 cells (Figure S2).

Table S1. Biochemical parameters of STZ-induced diabetic mice treated with riclin

Experimental groups	Control	STZ	STZ+LR	STZ+HR
HbA1c (mmol/L)	3.88±0.06**	8.33±0.27	7.20±0.27*	6.19±0.33**
TRIG (nmol/L)	2.12±0.13**	3.22±0.15	2.61±0.10**	1.97±0.21**
TCHO (nmol/L)	2.61±0.09**	4.51±0.39	3.52±0.18*	2.86±0.10**
HDL-C (nmol/L)	2.23±0.12**	3.44±0.19	2.87±0.11*	2.22±0.10**
LDL-C (nmol/L)	0.40±0.02**	0.74±0.07	0.50±0.04**	0.39±0.05**
BUN (nmol/L)	10.22±0.35**	12.29±0.30	10.95±0.19**	10.12±0.20**
CREA (umol/L)	10.25±0.37**	13.50±0.53	10.50±0.63**	8.25±0.45**

The number of mice in each group is 12.

Values are means±S.E.M for the indicated number of mouse in each group (N).

*P<0.05, **P<0.01 compared with STZ group mice.

Table S2. Primer sequences used in quantitative RT-PCR analysis

Gene	Primer Sequences
<i>Pdx1</i>	Forward: 5'- ACTTGAGCGTTCCAATACGC-3' Reverse: 5'- AGAGGGGGAACGACTCTAGG-3'
<i>MafA</i>	Forward: 5'- TTCAGCAAGGAGGAGGTCAT-3' Reverse: 5'- CCGCCAACCTTCTCGTATTTTC-3'
<i>Insulin</i>	Forward: 5'- GGAGCGTGGCTTCTTCTACA-3' Reverse: 5'- GGTGGGCCTTAGTTGCAGTA-3'
<i>Mcp-1</i>	Forward: 5'- GCTGGAGCATCCACGTGTT-3' Reverse: 5'- ATCTTGCTGGTGAATGTGTAGCA-3'
<i>Bcl-2</i>	Forward: 5'- GTCGCTACCGTCGTGACTTC-3' Reverse: 5'- CAGACATGCACCTACCCAGC-3'
<i>Bax</i>	Forward: 5'- CTGAGCTGACCTTGGAGC-3' Reverse: 5'- GACTCCAGCCACAAAGATG-3'
<i>Caspase-3</i>	Forward: 5'- TGTCATCTCGCTCTGGTACG-3' Reverse: 5'- AAATGACCCCTTCATCACCA-3'
<i>IL-1β</i>	Forward: 5'- GAGCTTCAGGCAGGCAGTATC-3' Reverse: 5'- GTATAGATTCTTTCCTTTGAGGC-3'
<i>IFN-γ</i>	Forward: 5'- AGGAACTGGCAAAGGATGGTG-3' Reverse: 5'- GTGCTGGCAGAATTATTCTTATTG-3'
<i>IL-4</i>	Forward: 5'- TGACGCACAGAGCTATTGATGG-3' Reverse: 5'- ATGATGCTCTTTAGGCTTTCCAG-3'
<i>IL-10</i>	Forward: 5'- GAGGCTACGGCGCTGTCAT-3' Reverse: 5'- CCACGGCCTTGCTCTTGTT-3'
<i>IL-12</i>	Forward: 5'- ATGGCCATGTGGGAGCTGGAGAAAG-3' Reverse: 5'- GTGGAGCAGCAGATGTGAGTGGCT-3'
<i>iNOs</i>	Forward: 5'- TGGTGAGGGGACTGGACTTT-3' Reverse: 5'- CCAACTCTGCTGTTCTCCGT-3'
<i>Arg-1</i>	Forward: 5'- CATGGGCAACCTGTGTCCTT-3' Reverse: 5'- TCCTGGTACATCTGGGAACTTTC-3'
<i>β-actin</i>	Forward: 5'- TGCGTGACATCAAAGAGAAG-3' Reverse: 5'- CGGATGTCAACGTCACACTT-3'

Fig. S1

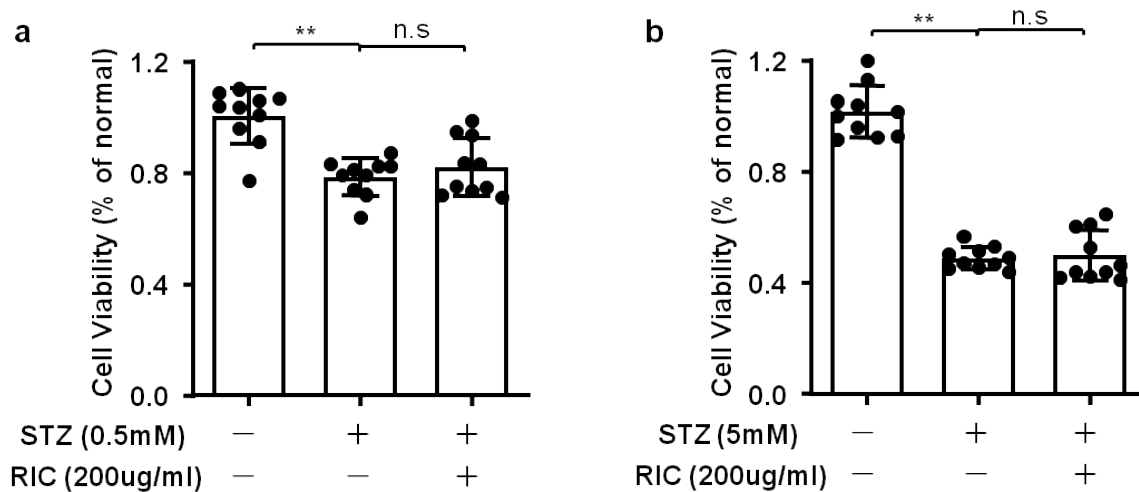
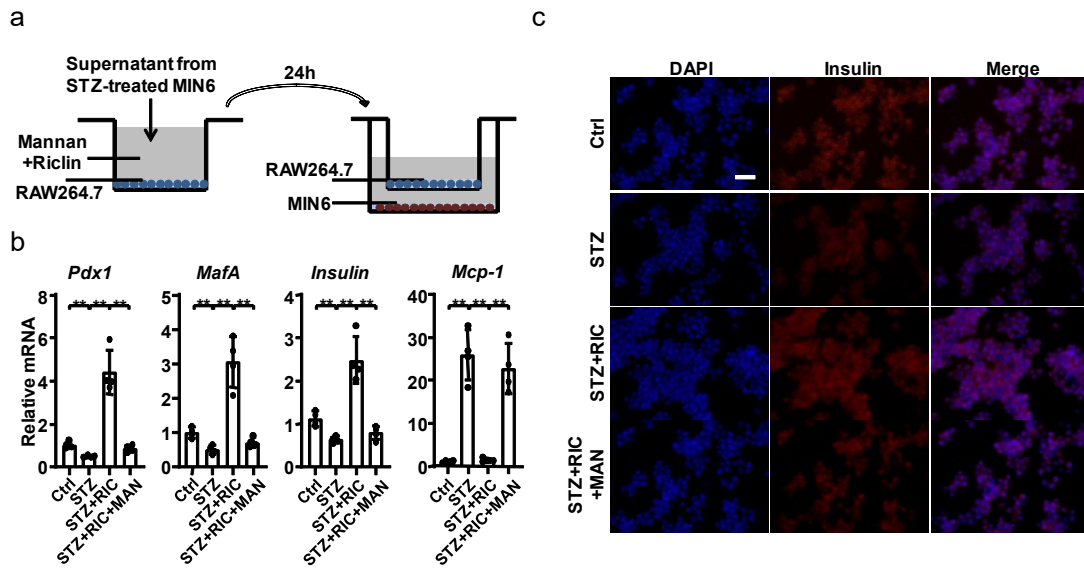


Figure S1. Effect of riclin on STZ-induced MIN6 cell damage. (a) MTT-based cytotoxicity assay of STZ (0.5mM) to MIN6 cell in the presence and absence of Riclin (200ug/ml). (b) MTT-based cytotoxicity assay of STZ (5mM) to MIN6 cell in the presence and absence of Riclin (200ug/ml). Data were shown as mean \pm SD, and were analyzed by one-way ANOVA. * $p < 0.05$, ** $p < 0.01$, n.s: no significance.

Fig. S2



Supplementary Figure 2. The intervention of mannan inhibited the protective effect of Riclin on MIN6 cells. (a) Study design. (a)-(c) STZ+RIC group were treated with riclin (RIC) of 200 μ g/ml. STZ+RIC+MAN group were treated with mannan (MAN) of 50 μ g/ml and riclin of 200 μ g/ml. Ctrl group were not treated with STZ and RIC, while STZ group were treated with STZ and PBS. (b) The mRNA expression levels of *Pdx1*, *MafA*, *Insulin* and *Mcp-1*. (c) Expression level of insulin detected by immunofluorescence (scale bar: 20 μ m). Data were shown as mean \pm SD, and were analyzed by one-way ANOVA. ** p <0.01.