

## Supplementary Materials

Table S1. Changes of body weight and food intake in Sprague-Dawley rat gavaged with soybean or tempeh for 12 weeks.

parameter	C	D	SL	SH	TL	TH
Initial body weight(g)	220.0±29.5	224.9±27.1	224.3±37.6	222.4±26.4	221.6±28.1	226.0±28.4
Final body weight(g)	554.5±84.8	567.0±53.5	566.4±72.5	542.4±37.0	548.1±47.3	545.0±47.1
Body weight gain(g)	334.4±66.8	342.1±50.9	342.16±53.3	319.9±32.1	326.5±36.4	318.9±58.3
Food intake(g/day)	28.8±3.9	28.9±2.2	28.6±7.2	29.8±2.4	26.7±6.8	27.2±5.9

C: control, D: DMH, SL: DMH + 300 mg/kg BW soybean, SH: DMH + 600 mg/kg BW soybean, TL: DMH + 300 mg/kg BW tempeh, TH: DMH + 600 mg/kg BW tempeh. Values were means  $\pm$  S.D. For C, D, SH group, n=10; SL, TL, TH groups is n=9. No significant difference among groups ( $p \geq 0.05$ ).

Table S2. Relative organ weights of SD rat gavaged with soybean and tempeh for 12 weeks

	Heart	Liver	Spleen	Kidney	Colon
C	0.33±0.04	3.24±0.47 <sup>b</sup>	0.17±0.02	0.73±0.07	0.09±0.03 <sup>a</sup>
D	0.32±0.05	2.83±0.17 <sup>a</sup>	0.17±0.02	0.71±0.09	0.11±0.02 <sup>ab</sup>
SL	0.32±0.03	3.23±0.66 <sup>b</sup>	0.22±0.13	0.73±0.06	0.11±0.03 <sup>ab</sup>
SH	0.31±0.04	2.83±0.19 <sup>a</sup>	0.16±0.02	0.70±0.04	0.11±0.02 <sup>ab</sup>
TL	0.33±0.03	2.75±0.29 <sup>a</sup>	0.17±0.03	0.71±0.07	0.11±0.02 <sup>ab</sup>
TH	0.32±0.04	2.95±0.27 <sup>ab</sup>	0.18±0.02	0.71±0.08	0.12±0.03 <sup>b</sup>

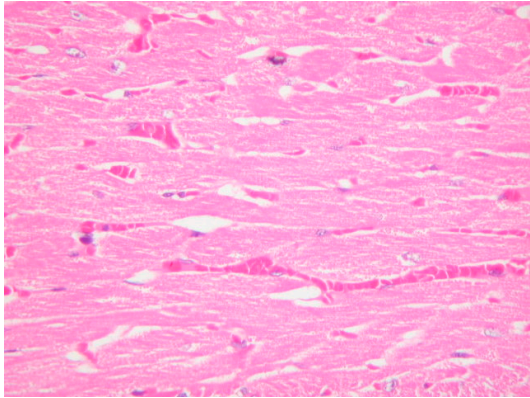
C: control, D: DMH, SL: DMH + 300 mg/kg BW soybean, SH: DMH + 600 mg/kg BW soybean, TL: DMH + 300 mg/kg BW tempeh, TH: DMH + 600 mg/kg BW tempeh

\*Values were means ± S.D. For C, D, SH group, n=10; SL, TL, TH groups is n =9.

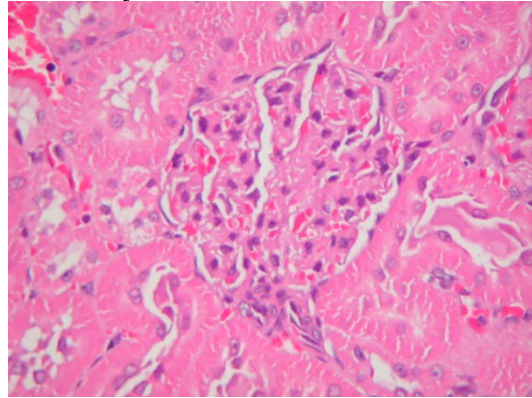
<sup>ab</sup> different letters in the same column indicate significant difference as determined by ANOVA and Duncan's test.

# Relative organ weights = organ weights/body weight ×100

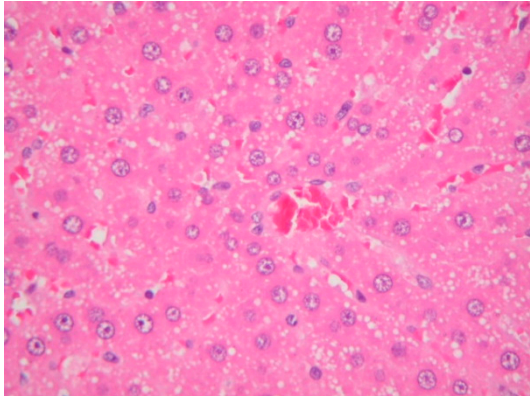
**A. heart**



**B. kidney**



**C. liver**



**D. spleen**

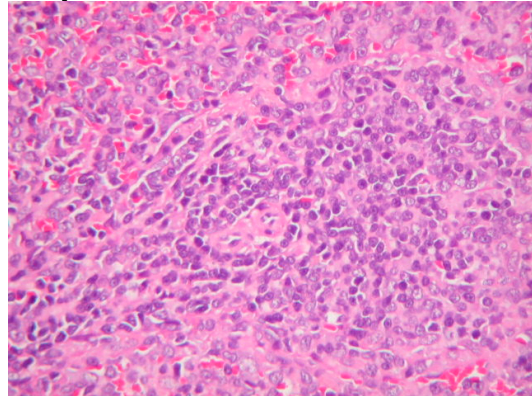
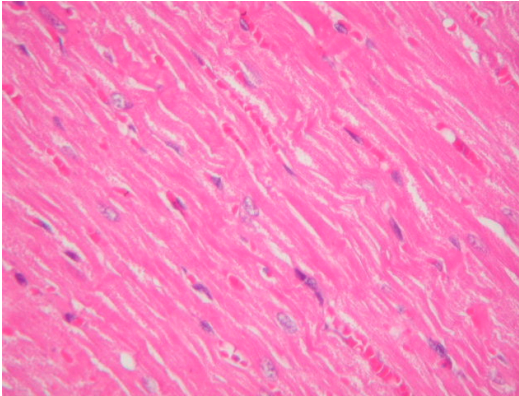
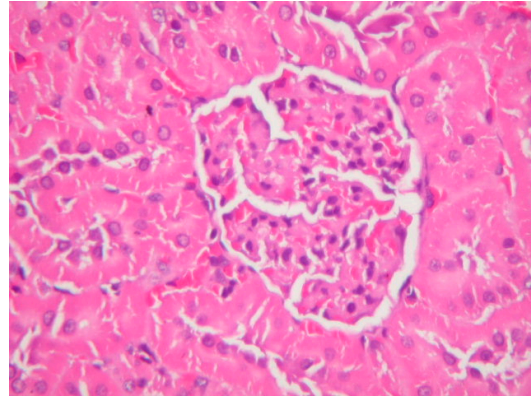


Figure S1. No significant histopathological changes of control rats in the oral toxicity test. No significant finding was noted for (A) heart, (B) kidney, (C) liver, and (D) spleen in the control group (H&E stain, 400x).

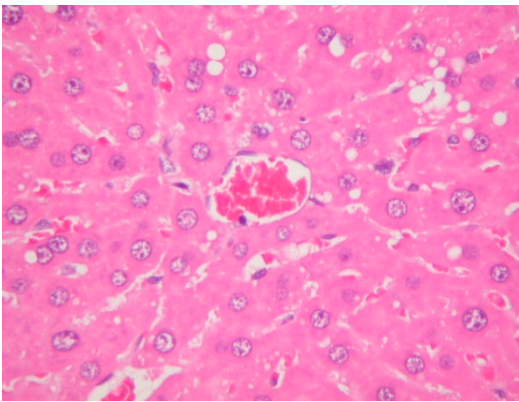
**A. heart**



**B. kidney**



**C. liver**



**D. spleen**

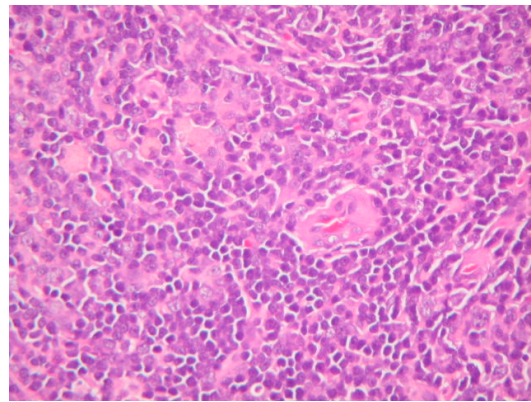
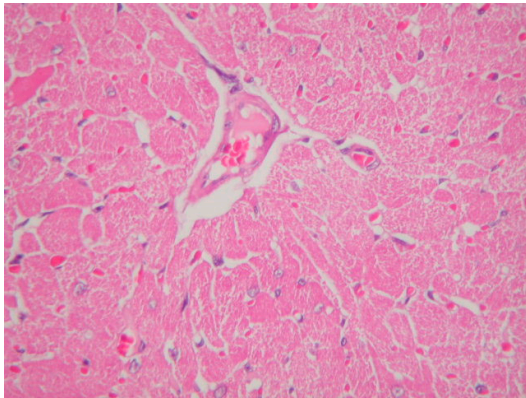


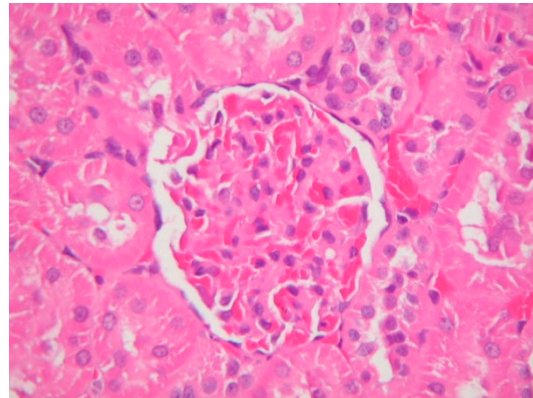
Figure S2. No significant histopathological changes of rats in the DMH group. No significant finding was noted (A) heart, (B) kidney, (C) liver, and (D) spleen for in the DMH group (H&E stain, 400x).



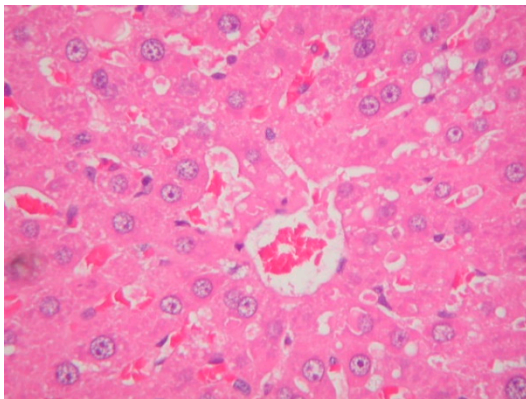
A. heart



B. kidney



C. liver



C. spleen

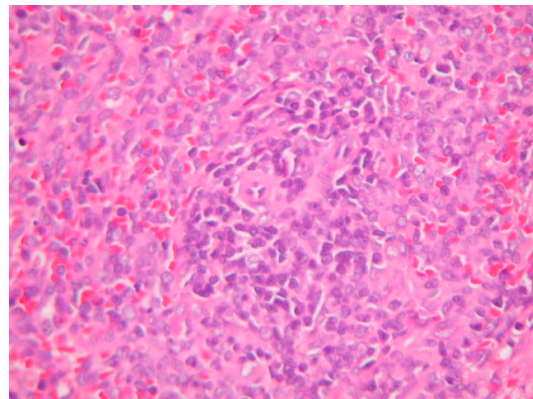
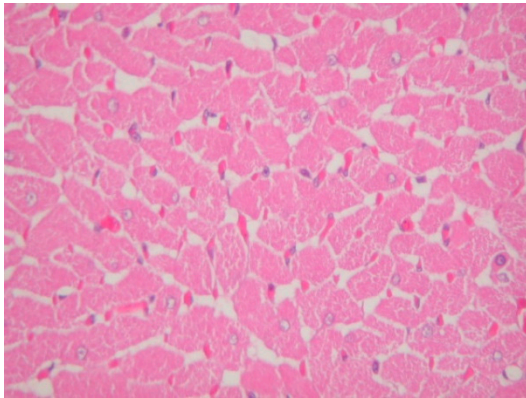
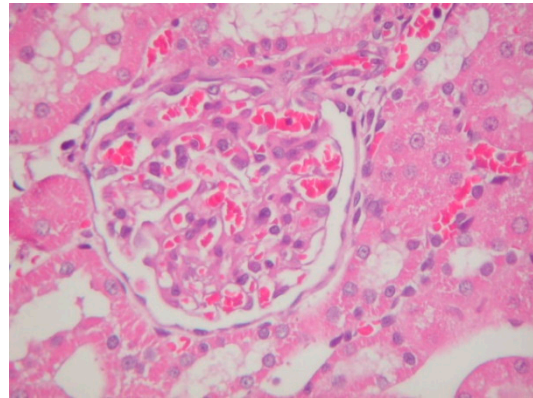


Figure S3. No significant histopathological changes of rats in the SH group. No significant finding was noted (A) heart, (B) kidney, (C) liver, and (D) spleen for in the DMH group (H&E stain, 400x).

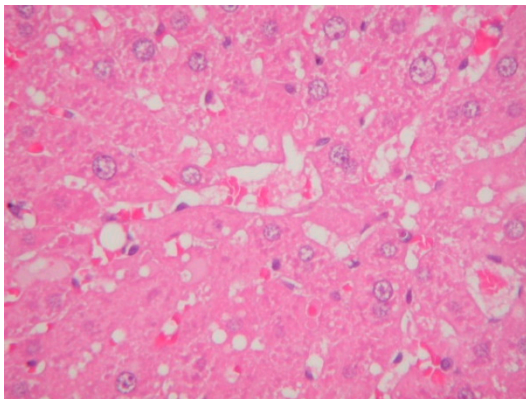
A. heart



B. kidney



C. liver



D. spleen

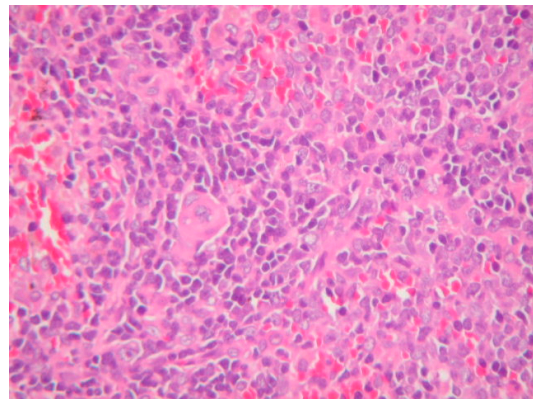


Figure S4. No significant histopathological changes of rats in the TH group. No significant finding was noted (A) heart, (B) kidney, (C) liver, and (D) spleen for in the DMH group (H&E stain, 400x).