**Table S1. The GSH level of kidney tissue of mice.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Treated Groups |  | GSH(µM) |  | Mean± SD |
| Control | **0.209** | **0.21** | **0.219** | **0.212±0.005b** |
| IR | **0.12** | **0.13** | **0.127** | **0.125±0.005a** |
| Zn NPs5+IR | **0.133** | **0.136** | **0.14** | **0.136±0.003a** |
| Zn NPs10+IR | **0.151** | **0.143** | **0.154** | **0.149±0.005a,b** |
| Zn NPs25+IR | **0.156** | **0.148** | **0.146** | **0.15±0.005a,b** |
| Zn SO4 5+IR | **0.128** | **0.14** | **0.13** | **0.132±0.006a** |

The GSH level of kidney tissue of mice treated with control, IR , Zn NPs (5 mg/kg) + IR, Zn NPs (10 mg/kg) + IR and Zn NPs (25 mg/kg) + IR , and ZnSO4(5 mg/kg+ IR) groups . Data are expressed as mean ± SD, N=3 per group. (a: (*p* < 0.05) compared with the control group, and b: (*p* < 0.05) compared with the IR group).

**Table S2. The MDA level of kidney tissue of mice.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Treated Groups |  | MDA(nM) |  | Mean± SD |
| Control | **15.5** | **13.5** | **13** | **14±1.08 b** |
| IR | **42** | **40** | **44** | **42±1.6 a** |
| Zn NPs 5+IR | **37** | **40** | **40** | **39±1.4 a** |
| Zn NPs10+IR | **36** | **38** | **40** | **38±1.6 a,b** |
| Zn NPs25+IR | **32** | **35** | **36** | **34.3±1.6 a,b** |
| ZnSO4 5+IR | **45** | **38** | **37** | **40±3.5 a** |

MDA level of kidney tissue of mice treated with control, IR , Zn NPs (5 mg/kg) + IR, Zn NPs (10 mg/kg) + IR and Zn NPs (25 mg/kg) + IR , and ZnSO4(5 mg/kg+ IR) groups . Data are expressed as mean ± SD, N=3 per group.

(a: (*p* < 0.05) compared with the control group, and b: (*p* < 0.05) compared with the IR group).

**Table S3. SOD activity of kidney tissue of mice**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Treated Groups |  | SOD(U/mgProtein) |  | Mean± SD |
| Control | **6.4** | **7.1** | **6.9** | **6.8±0.3 b** |
| IR | **2.3** | **1.9** | **1.8** | **2±0.2 a** |
| Zn NPs 5+IR | **2.6** | **2.9** | **3** | **2.8±0.2 a** |
| Zn NPs10+IR | **3.9** | **4.2** | **3.4** | **3.8±04 a,b** |
| Zn NPs25+IR | **4.5** | **3.6** | **3.9** | **4±0.4 a,b** |
| ZnSO4 5+IR | **2.4** | **2.9** | **2.5** | **2.6±0.2 a** |

SOD activity of kidney tissue of mice treated with control, IR , Zn NPs (5 mg/kg) + IR, Zn NPs (10 mg/kg) + IR and Zn NPs (25 mg/kg) + IR , and ZnSO4(5 mg/kg+ IR) groups . Data are expressed as mean ± SD, N=3 per group. (a: (*p* < 0.05) compared with the control group, and b: (*p* < 0.05) compared with the IR group).

**Table S4. CAT activity of kidney tissue of mice**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Treated Groups |  | CAT(U/mgProtein) |  | Mean± SD |
| Control | **15.5** | **13.5** | **13** | **14±1.08 b** |
| IR | **42** | **40** | **44** | **42±1.6 a** |
| Zn NPs 5+IR | **37** | **40** | **40** | **39±1.4 a** |
| Zn NPs10+IR | **36** | **38** | **40** | **38±1.6 a,b** |
| Zn NPs25+IR | **32** | **35** | **36** | **34.3±1.6 a,b** |
| ZnSO4 5+IR | **45** | **38** | **37** | **40±3.5 a** |

CAT activity of kidney tissue of mice treated with control, IR , Zn NPs (5 mg/kg) + IR, Zn NPs (10 mg/kg) + IR and Zn NPs (25 mg/kg) + IR , and ZnSO4(5 mg/kg+ IR) groups . Data are expressed as mean ± SD, N=3 per group. (a: (*p* < 0.05) compared with the control group, and b: (*p* < 0.05) compared with the IR group).