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Supplementary Materials

Biosynthesized ZnO-NPs from *Morus indica* Attenuates Methylglyoxal-Induced Protein Glycation and RBC Damage: In-Vitro, In-Vivo and Molecular Docking Study

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Table S1. Hemoglobin-δ-Gluconolactone (δ-Glu) assay.

Treatments		Inhibition of HbA1c (%)
Hb + δ-Gluconolactone + AG		45.89 ± 1.14 [a]
Hb + δ-Gluconolactone + ZnO-NPs	1 mg	1.81 ± 0.87 [d]
	2.5 mg	13.97 ± 1.30 [c]
	5 mg	26.54 ± 1.21 [b]
Hb+ δ-Gluconolactone + Zinc Nanopowder	1 mg	0.27 ± 0.48 [d]
	2.5 mg	0.53 ± 0.86 [d]
	5 mg	1.13 ± 0.97 [d]

Values are means of three independent replicates (n = 3) and ± indicate standard errors. Means followed by the same letter(s) within the same column are not significantly ($p < 0.05$) different according to Tukey's HSD.

Table S2. Inhibitory effect of biosynthesized ZnO-NPs from *M. indica* on protein glycation.

Treatments		Relative Intensity (a.u.)	
		Fluorescence of Total AGEs	**Fluorescence of Argpyrimidine**
BSA		508.66 ± 8.15^{e}	312.15 ± 4.13^{g}
BSA + MGO		1945.70 ± 38.08^{a}	981.50 ± 7.07^{a}
BSA + MGO + AG		569.90 ± 7.24^{e}	365.23 ± 7.22^{f}
BSA + MGO + ZnO-NPs	1 mg	1616.90 ± 13.89^{c}	809.91 ± 7.58^{c}
	2.5 mg	1369.70 ± 14.55^{d}	705.08 ± 10.16^{d}
	5 mg	1152.30 ± 37.42^{d}	589.60 ± 9.95^{e}
BSA + MGO + Zinc Nanopowder	1 mg	1838.00 ± 35.89^{b}	976.87 ± 10.06^{a}
	2.5 mg	1806.60 ± 52.02^{b}	939.78 ± 9.22^{b}
	5 mg	1795.10 ± 62.02^{b}	934.09 ± 11.57^{b}

Values are means of three independent replicates (n = 3) and ± indicate standard errors. Means followed by the same letter(s) within the same column are not significantly (p < 0.05) different according to Tukey's HSD.

Table S3. N-Acetylglycyl-lysine methyl ester (G.K.) peptide mediated ribose glycation with and without treatment.

Treatments	Relative Intensity (a.u.)
GKP + Ribose	743.19 ± 8.91^{a}
GKP + Ribose + AG	290.41 ± 7.42^{d}
GKP + Ribose + ZnO-NPs	398.41 ± 7.34^{c}
GKP + Ribose + Zinc Nanopowder	693.16 ± 8.94^{b}

Values are means of three independent replicates (n = 3) and ± indicate standard errors. Means followed by the same letter(s) within the same column are not significantly (p < 0.05) different according to Tukey's HSD.