**Supplementary Material**

Effects of β-cyclodextrin-based Schiff-base Zn(II) complexes: Synthesis, physicochemical characterization and their role in alleviating oxidative stress related disorder

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Figure S1. FTIR spectra of mono-6-deoxy-6-(p-tosylsulfonyl)-β-cyclodextrin (β-CDOTs) (**1**) and Mono-6-deoxy-6-(toluene-3,4-diamino)-β-cyclodextrin (**2**).

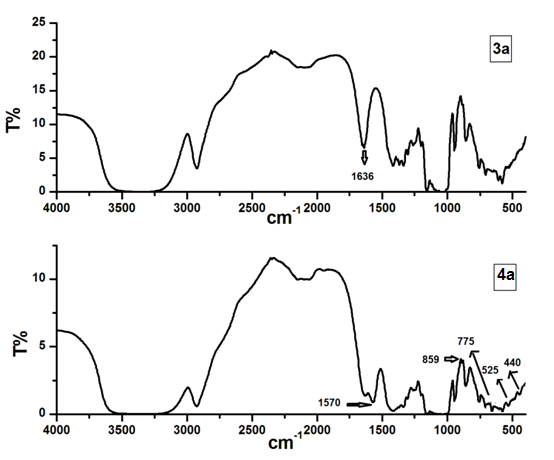


Figure S2. FTIR spectra of mono-6-deoxy-6-(4-(5-chloro-2-hydroxybenzylideneamino)-3,4-diaminotolune)-β-cyclodextrin (**3a**) and Zn complex of mono-6-deoxy-6-(4-(5-chloro-2-hydroxybenzylideneamino)-3,4-diaminotolune)-β-cyclodextrin (**4a**).

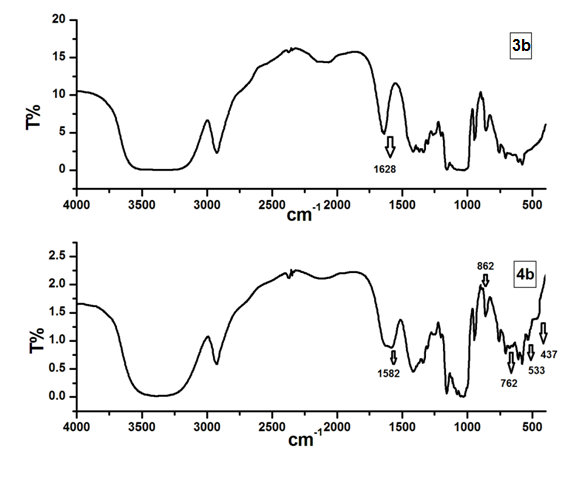


Figure S3. FTIR spectra of mono-6-deoxy-6-(4-(5-nitro-2-hydroxybenzylideneamino)-3,4-diaminotolune)-β-cyclodextrin (**3b**) and Zn complex of mono-6-deoxy-6-(4-(5-nitro-2-hydroxybenzylideneamino)-3,4-diaminotolune)-β-cyclodextrin (**4b**).

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Figure S4. 1H-NMR of mono-6-deoxy-6-(p-tosylsulfonyl)-β-cyclodextrin (β-CDOTs) (**1**).

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Figure S5. 1H-NMR of mono-6-deoxy-6-(toluene-3,4-diamino)-β-cyclodextrin (**2**).

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Figure S6. 1H-NMR of mono-6-deoxy-6-(4-(5-chloro-2-hydroxybenzylideneamino)-3,4-diaminotolune)-β-cyclodextrin (**3a**).

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Figure S7. 1H-NMR of mono-6-deoxy-6-(4-(5-nitro-2-hydroxybenzylideneamino)-3,4-diaminotolune)-β-cyclodextrin (**3b**).

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Figure S8. 1H-NMR of Zn complex of mono-6-deoxy-6-(4-(5-chloro-2-hydroxybenzylideneamino)-3,4-diaminotolune)-β-cyclodextrin (**4a**).

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Figure S9. 1H-NMR of Zn complex of mono-6-deoxy-6-(4-(5-nitro-2-hydroxybenzylideneamino)-3,4-diaminotolune)-β-cyclodextrin (**4b**).

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Figure S10. 13C-NMR of mono-6-deoxy-6-(p-tosylsulfonyl)-β-cyclodextrin (β-CDOTs) (**1**).

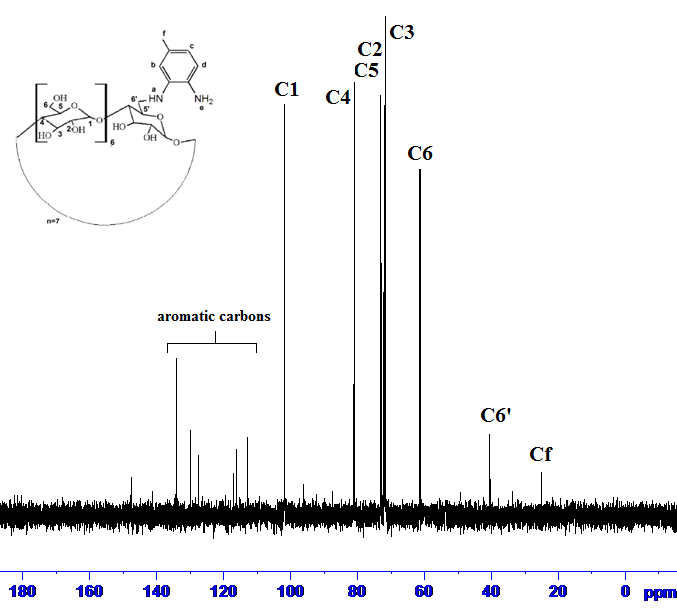


Figure S11. 13C-NMR of mono-6-deoxy-6-(toluene-3,4-diamino)-β-cyclodextrin (**2**).

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Figure S12. 13C-NMR of mono-6-deoxy-6-(4-(5-chloro-2-hydroxybenzylideneamino)-3,4-diaminotolune)-β-cyclodextrin (**3a**).

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Figure S13. 13C-NMR of mono-6-deoxy-6-(4-(5-nitro-2-hydroxybenzylideneamino)-3,4-diaminotolune)-β-cyclodextrin (**3b**).

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Figure S14. 13C-NMR of Zn complex of mono-6-deoxy-6-(4-(5-chloro-2-hydroxybenzylideneamino)-3,4-diaminotolune)-β-cyclodextrin (**4a**).

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Figure S15. 13C-NMR of Zn complex of mono-6-deoxy-6-(4-(5-nitro-2-hydroxybenzylideneamino)-3,4-diaminotolune)-β-cyclodextrin (**4b**).

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Figure S16. Absorption spectra of mono-6-deoxy-6-(toluene-3,4-diamino)-β-cyclodextrin (**2**).

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Figure S17. Absorption spectra of (a) mono-6-deoxy-6-(4-(5-chloro-2-hydroxybenzylideneamino)-3,4-diaminotolune)-β-cyclodextrin (**3a**) and (b) Zn complex of mono-6-deoxy-6-(4-(5-chloro-2-hydroxybenzylideneamino)-3,4-diaminotolune)-β-cyclodextrin (**4a**).

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Figure S18. Absorption spectra of (a) synthesis of mono-6-deoxy-6-(4-(5-nitro-2-hydroxybenzylideneamino)-3,4-diaminotolune)-β-cyclodextrin (**3b**) and (b) Zn complex of Mono-6-deoxy-6-(4-(5-nitro-2-hydroxybenzylideneamino)-3,4-diaminotolune)-β-cyclodextrin (**4b**).

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Figure S19. UV–Vis spectra of the ligand (**3a**) (1×10-5 mol·L-1) in the presence of increasing concentrations of Zn(II) ions. Inset: absorbance plot for the ligand (**3a**) with Zn(II) ion against *c*M:*c*L.

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Figure S20. UV–Vis spectra of the ligand (**3b**) (1×10-5 mol·L-1) in the presence of increasing concentrations of Zn(II) ions. Inset: absorbance plot for the ligand (**3b**) with Zn(II) ion against *c*M:*c*L.

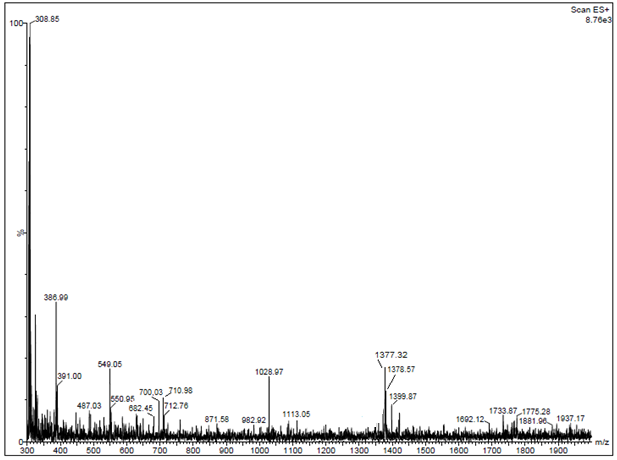


Figure S21. ESI-MS spectra of mono-6-deoxy-6-(4-(5-chloro-2-hydroxybenzylideneamino)-3,4-diaminotolune)-β-cyclodextrin (**3a**).

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Figure S22. ESI-MS spectra of mono-6-deoxy-6-(4-(5-nitro-2-hydroxybenzylideneamino)-3,4-diaminotolune)-β-cyclodextrin (**3b**).

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Figure S23. ESI-MS spectra of Zn complex of mono-6-deoxy-6-(4-(5-chloro-2-hydroxybenzylideneamino)-3,4-diaminotolune)-β-cyclodextrin (**4a**).

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Figure S24. ESI-MS spectra of Zn complex of mono-6-deoxy-6-(4-(5-nitro-2-hydroxybenzylideneamino)-3,4-diaminotolune)-β-cyclodextrin (**4b**).