



DNA Cleavage Protection Ability of Ortho and Para Methyl Derivatives of N-1-Naphthylbenzohydroxamic Acid

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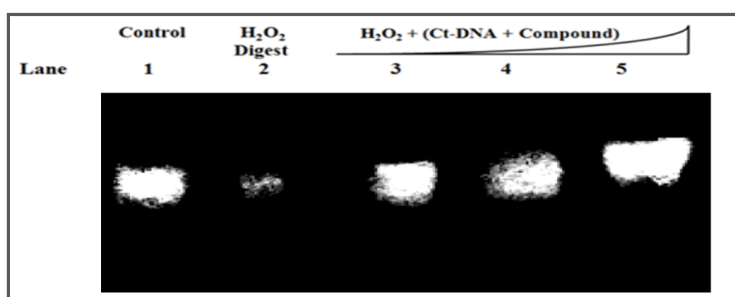
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ABSTRACT

The antioxidant behaviour of ortho and para methyl derivatives of N-1-naphthylbenzohydroxamic acid has been studied through DNA cleavage protection ability. Gel electrophoresis technique was used. 0.8% agarose gel was used for loading the samples along with loading buffer. Electrophoresis was performed using TAE buffer and ethidium bromide dye was used for visualizing the DNA samples through the UV transilluminator. The results obtained showed that both the derivatives were capable of inhibiting hydrogen peroxide mediated DNA damage. This can be attributed to the hydrogen bond donor nature of hydroxamic acids.

Graphical Abstract



Highlights

- DNA cleavage protection ability of ortho and para methyl derivatives of N-1-naphthyl benzohydroxamic acid has been studied.
- Gel electrophoresis technique was used.
- Both the derivatives were capable of inhibiting hydrogen peroxide mediated DNA damage.
- This can be attributed to the hydrogen bond donor nature of hydroxamic acids.

Keywords: DNA cleavage protection, Free radical scavenging activity, N-1-naphthyl-o-benzohydroxamic acid.