

## ANTIMICROBIAL ACTIVITY OF N-PHENYL LAUROHYDROXAMIC ACID

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An experiment was designed to find out the biological activity of N Phenyl laurohydroxamic acid (N-PLHA). Five concentrations at 10, 20, 30, 40 and 50 ppm of N-PLHA were used in the study. The antimicrobial activity of N-PLHA was investigated against two fungi (*Aspergillus flavus* and *Aspergillus niger*) and two bacteria (*Escherichia coli* and *Lactobacillus* spp.) by means of disk and well diffusion techniques. Initially, lower concentrations at 2, 4, 6, 8 and 10 ppm were tested. They did not form restriction zones in both fungi and bacteria. As the second step, concentrations of 10, 20, 30, 40 and 50 ppm were selected for testing. The zone formation was first observed at the concentration of 20 ppm. The results revealed that the target chemical N-PLHA has an antifungal and antibacterial activity as it showed restriction zones on the culture plates. The diameter of restriction zone was affected by two factors, the concentration and the chemical type. There were significant differences among the chemicals of inhibition and the average diameter of inhibition zones formed by N-PLHA, which was greater compared to Dimethyl sulfoxide but lesser compared to Ampicillin. Similarly, the antimicrobial activity of the chemicals increased with the concentration and the inhibition was observed at the concentration of 30 ppm.

**Key words:** N Phenyl laurohydroxamic acid, Antimicrobial activity, Disk diffusion techniques, Well diffusion techniques, Restriction zone