

**Determination of minimum growth inhibitory concentration (MIC)
of food acidulants**

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ABSTRACT

Acetic, Adipic, Ascorbic, Citric and Sorbic acid, common food acidulant applied in food, have been investigated systematically with regard to their ability to inhibit the growth of reference stain *Escherichia coli* by serial dilution method. 0.57, 0.14, 9.88, 9.93, and 3.46 mg/ml of Acetic, Adipic, Ascorbic, Citric and Sorbic acid correspondingly are minimum concentration that capable to inhibit *E.coli* growth at aqueous solution and without adjustment of pH when concentration of culture is 1.43×10^4 CFU/ml. Minimum Growth Inhibitory Concentration (MIC) of acidulants have been demonstrated using graded concentration technique, 4 series of graded concentration were organize for superiority results. The results of this study suggest a significant antibacterial function of food acidulants with the most significant effective, Adipic acid, among the others. For further study, specific studies of MIC; determination of optimal pH, temperature including affect of food to MIC are recommended.