PRODUCTION AND PURIFICATION OF EXTRA CELLULAR LIPASE FROM *Pseudomonas cepacia* AND STUDY THE PARTIALCHARACTERIZATION .

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ABSTRACT

Twelve isolates of Pseudomonas were obtained from thirty five(34%) from different species soil ,plants and river s water in al Muqdadia fields .Ability of lipase production by these isolates was screened *Pseudomonas* P5 was highest lipase producer identified as *Pseudomonas cepacia* .

Lipase production conditions were studied .the highest production of lipase was observed when mineral medium containing 5% linseed oil inculcated with bacterial cells e ,ph 7.5 and incubated at40 c in shaking incubator120 r.p.m for 18 hr.

Lipase was purified from bacterial cells by two steps including precipitation with ammonium sulfate and Ion exchange chromatography by DEAE- Sephadex-A25, fold of purification was 35 U\ml with 36.5% enzyme recovery .

The effect of some metal ions on lipase activity was studied .The Ca^{+2} increased lipase activity to 150%.

The effect of specific substances on enzyme activity was investigated ,The result showed that Tween80 raised lipase activity to 145%.

Key words : Inhibitors *Pseudomonas cepacia* ,Lipase enzyme ,Characterization,