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PRODUCTION AND PARTIAL PURIFICATION OF PROTEASE ENZYME FROM BACTERIAL ISOLATE OF VEGETABLE WASTE

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ABSTRACT: The protease enzymes are well known for their commercial importance. The microbes are found to be the best source of them. In the present study vegetable samples were used for isolation of protease producing bacteria. Out of 8 vegetables tested the bacterial isolate from potato was found to produce protease enzyme which was screened on gelatin agar medium using mercuric chloride. Optimization was performed for protease production by given isolate and the best production was obtained after 24 hrs of incubation at temperature 37°C and pH 7. The best carbon source was found to be glucose and nitrogen source was ammonium nitrate. The partially purified enzyme in combination with detergent solution resulted in good washing test performance for blood stain which was immobilized using sodium alginate for future use.

Keywords: *Protease enzyme, optimization, partial purification, washing test, immobilization*

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