

Seleksi dan Pengujian Aktivitas Enzim *L-Histidine Decarboxylase* dari Bakteri Pembentuk Histamin

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Selection and test of L-histidine decarboxylase enzyme activity of six isolates of histamine forming bacteria. Six isolates of histamine forming bacteria were screened to see the degree of ability in producing histamine on modified Niven's medium. The result showed that the six bacteria were able to produce histamine by giving a pinkish color on the medium, which could be used as a preliminary identification of histamine-forming bacteria (HFB). The isolates were grown in liquid modified Niven medium to measure the production of histamine. The histamine produced were determined by Hardy and Smith method. The result showed that all of the isolates produced high level of histamine (92.35 – 305.49 mg/100 ml of the medium). From all of them, *Enterobacter* spp. produced the highest level of histamine (305.49 mg/100 ml). A synthetic medium was used to measure the growth pattern and optimum time required by *Enterobacter* spp and *Morganella morganii* (as control bacteria) to produce the L-histidine decarboxylase enzyme (HDC) which is responsible for histamine production. The result showed that for both bacteria, the optimum enzym production was 8 hours after incubation.

Keywords: histamine forming bacteria, L-histidine decarboxylase, Niven's modified medium