

ABSTRAK

ISOLASI DAN IDENTIFIKASI BAKTERI KANDIDAT PROBIOTIK DARI INGLUVIES AYAM PETELUR (*Gallus gallus domesticus*)

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Pemberian probiotik sebagai pengganti *antibiotic growth promoter* pada peternakan ayam sudah dikembangkan. Probiotik yang berasal dari mikroba alami saluran pencernaan ayam memiliki potensi untuk dapat memperoleh performa dan produktivitas yang tinggi. Penelitian ini bertujuan untuk mengisolasi dan mengidentifikasi bakteri pada ingluvies ayam petelur sehat yang dapat digunakan sebagai kandidat probiotik.

Sampel yang digunakan berasal dari lima ekor ayam petelur strain Isa Brown sehat berumur 20 minggu. Metode penelitian meliputi pengambilan sampel dari ingluvies ayam petelur, kultur pada media de Man-Rogosa Sharpe (MRS), pengamatan morfologi koloni, morfologi sel, dan uji biokimia, serta uji fisiologis yang meliputi uji fermentasi karbohidrat, motilitas, urease, NaCl 6,6%, NaCl 18% dan ketahanan pada suhu yang bervariasi.

Hasil isolasi dan identifikasi bakteri pada ingluvies terdapat 20% bakteri berbentuk batang Gram positif, 10% berbentuk bulat positif, dan 70% bakteri Gram negatif. Pada pengujian terdapat tiga isolat yaitu 1A, 1B, dan 5B yang merupakan bakteri Gram positif dan dilanjutkan dengan uji biokimia dan fisiologi. Namun, ketiga isolat tidak menunjukkan adanya karakteristik yang mengarah ke kandidat probiotik.

Kata Kunci: Ingluvies, probiotik, bakteri asam laktat

ABSTRACT

ISOLATION AND IDENTIFICATION OF PROBIOTIC CANDIDATE BACTERIA FROM INGLUVIES OF LAYER (*Gallus gallus domesticus*)

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The result of previous studies have shown that probiotics could be an alternative a substitute for *antibiotic growth promoters* (AGP). Probiotics derived from natural microbes in the digestive tract of chickens have the potential to be able to obtain high performance and productivity. This study aims to isolate and identify bacteria from ingluvies of chickens that can be used as probiotic candidates.

Five samples used were from healthy laying hens *strain Isa Brown* 20 weeks old. The research methods included taking samples from ingluvies of laying hens, culturing on de Man-Rogosa Sharpe (MRS) media, observing colony morphology, cell morphology, and biochemical tests, as well as physiological tests which included tests on carbohydrate fermentation, motility, urease, NaCl 6,6 %, 18% NaCl and resistance at various temperatures.

The results of the isolation and identification of bacteria in the ingluvies showed that 20% of the bacteria were Gram-positive rods, 10% were round-shaped positive, and 70% were Gram-negative bacteria. In the test there were three isolates namely 1A, 1B, and 5B which were Gram positive bacteria and followed by biochemical and physiological tests. However, the three isolates did not show any characteristics leading to probiotic candidates.

Keywords: Ingluvies, probiotics, lactic acid bacteria