

## ABSTRAK

### ISOLASI DAN KARAKTERISASI *Peptococcus* sp. DARI SAMPEL FESES KUDA DI DAERAH ISTIMEWA YOGYAKARTA

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Populasi kuda di Daerah Istimewa Yogyakarta pada lima tahun terakhir telah mengalami penurunan yang disebabkan oleh masih tingginya tingkat kejadian penyakit, terutama penyakit gastrointestinal. Laporan PORDASI pengurus Daerah Istimewa Yogyakarta tahun 2017 menyatakan total kejadian penyakit mencapai 335 kasus/tahun. Tingkat kejadian penyakit gastrointestinal sebesar 16,9% dari total tersebut. Tujuan dari penelitian ini adalah untuk mengetahui karakteristik bakteri *Peptococcus* sp. pada sampel feses kuda di Daerah Istimewa Yogyakarta.

Materi yang digunakan dalam penelitian ini adalah 9 sampel feses kuda yang berasal dari Daerah Istimewa Yogyakarta (5 ekor kuda di Kabupaten Bantul, 3 ekor kuda di Kabupaten Sleman, dan 1 ekor kuda di Kota Yogyakarta). Metode penelitian ini menggunakan media plat agar darah (PAD) untuk isolasi bakteri. Karakterisasi *Peptococcus* sp. didapatkan dari pengamatan morfologi koloni dan sel, serta uji-uji lainnya seperti uji motilitas, kaldu hati Tarozzi (KHT), *Triple Sugar Iron Agar* (TSIA), indol, gula-gula, urease, NaCl 6.5%, dan katalase. Hasil isolasi dan karakterisasi bakteri ditabulasi dan dianalisis secara deskriptif.

Hasil isolasi dan karakterisasi bakteri pada sampel feses kuda di Daerah Istimewa Yogyakarta (Kabupaten Bantul, Sleman dan Kodya) diperoleh bakteri *Peptococcus* sp. sebanyak 88,9% dengan ciri-ciri morfologi koloni bakteri *Peptococcus* sp. pada PAD berbentuk *circular*, tepi *entire*, elevasi *convex*, berwarna kelabu, dan berukuran kecil. Morfologi sel berbentuk kokus Gram positif dengan hasil uji motilitas (-), KHT (+), TSIA (<sup>R</sup>/<sub>R</sub> B), indol (-), manitol (-), sukrosa (-), sorbitol (-), urease (-), NaCl 6,5% (-), dan katalase (-).

Kata kunci: Kuda, isolasi, *Peptococcus* sp., feses, karakterisasi

## ABSTRACT

### ISOLATION AND CHARACTERIZATION OF *Peptococcus* sp. FROM FECES SAMPLES OF HORSES IN THE SPECIAL REGION OF YOGYAKARTA

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The horse population in special region of Yogyakarta in the last five years has experienced a downturn caused by the still high rates of incidence of diseases especially the gastrointestinal diseases. PORDASI management of the special region of Yogyakarta 2017 report stated a total of 335 cases of disease occurrence/year. Gastrointestinal diseases incidence rate as much as 16.9% of the total. The purpose of this research is to acknowledge characteristic of bacteria *Peptococcus* sp. in feces samples in the special region of Yogyakarta.

The material used in this research were nine feces samples of horses from the special region of Yogyakarta (a horse in the city, 5 horses in Bantul Regency and 3 horses in Sleman Regency). This research method using blood agar plate (PAD) for the isolation of bacteria. Characterization of *Peptococcus* sp. obtained from observations of the colony and cell morphology, as well as other tests such as the test-motility test, a liver broth Tarozzi (KHT), Triple Sugar Iron Agar (TSIA), indol, carbohydrate fermentation, urease, NaCl 6,5%, and catalase test. The results of isolation and characterization of bacteria were tabulated and analyzed descriptive.

The research of isolation and characterization of bacteria on the feces samples of horses in the special region of Yogyakarta (the city, Bantul and Sleman Regency) has been done and obtained the result of bacteria *Peptococcus* sp. as 88.9% with morphology colonies bacterial *Peptococcus* sp. on PAD were circular-shaped, entire, convex, gray colored, and small. Coccus-shaped cells morphology and Gram positive also test results with motility (-), KHT (+), TSIA (<sup>R</sup>/<sub>R</sub> B), indol (-), manitol (-), sucrose (-), sorbitol (-), urease (-), NaCl 6.5% (-), and catalase (-).

**Keywords:** Horse, isolation, *Peptococcus* sp., feces, characterization