

## ABSTRAK

Ikan patin (*Pangasius sp*) menjadi salah satu jenis ikan air tawar yang dimanfaatkan dalam pangan khususnya di wilayah Indonesia. Data KKP RI, produksi ikan patin tahun 2021 hingga 2022 meningkat. Ikan patin yang sudah menjadi tepung memiliki kandungan nutrisi protein, karbohidrat, lemak, mineral, dan lainnya. Tingginya prevalensi kasus kematian oleh bakteri patogen diantaranya *Staphylococcus aureus* dan *Klebsiella pneumoniae*, diperlukan penunjang diagnostik guna mendukung pemeriksaan mikrobiologi dalam pengendalian penyakit. Salah satu medium pertumbuhan bakteri dalam pemeriksaan mikrobiologi yaitu media *Nutrient Agar*. Tarif tinggi pada media tersebut mendorong peneliti berinovasi dalam memanfaatkan bahan alam. Tujuan penelitian guna mengetahui perbedaan media alternatif tepung ikan patin dengan *Nutrient Agar* pada pertumbuhan *Staphylococcus aureus* dan *Klebsiella pneumoniae* dengan menghitung jumlah koloni. Penelitian dilaksanakan pada Mei 2024 di Laboratorium Bakteriologi Jurusan TLM Poltekkes Kemenkes Surabaya. Peneliti ini termasuk *true experimental laboratoris* yang dirancang dengan *posttest only control group design*. Bahan uji yang dipakai yakni tepung ikan patin variasi massa 1, 3, 5, 7, 9 gram yang diinokulasikan bakteri *Staphylococcus aureus* dan *Klebsiella pneumoniae* dengan teknik inokulasi bakteri metode *spread plate* dan perhitungan koloni menggunakan alat *colony counter*. Hasil penelitian diperoleh *Staphylococcus aureus* dan *Klebsiella pneumoniae* yang tumbuh di media alternatif tepung ikan patin mengalami peningkatan dari massa 1 gram hingga 9 gram. Hasil uji statistik menunjukkan tidak terdapat perbedaan yang signifikan untuk pertumbuhan kedua bakteri tersebut di media alternatif yang dipakai pada setiap variasi massa gram dengan *Nutrient Agar*, sehingga media tepung ikan patin dapat digunakan sebagai media alternatif dari media pabrikan.

**Kata kunci:** Tepung Ikan Patin, *Nutrient Agar*, *Staphylococcus aureus*, *Klebsiella pneumoniae*, Media Alternatif

## **ABSTRACT**

*Catfish fish (Pangasius sp) is one of the freshwater fish species utilized in food, especially in Indonesia. According to data from the Ministry of Marine Affairs and Fisheries of the Republic of Indonesia, Catfish production increased from 2021 to 2022. Catfish that has been processed into flour, contains nutrients such as protein, carbohydrates, fats, minerals, and others. Due to the high prevalence of mortality caused by pathogenic bacteria such as Staphylococcus aureus and Klebsiella pneumoniae, diagnostic support is needed to assist microbiological examinations for disease control. One of the bacterial growth media used in microbiological examinations is Nutrient Agar. The high cost of this media encourages researchers to innovate by utilizing natural materials. The aim of this research is to determine the difference between an alternative medium made from catfish flour and Nutrient Agar in supporting the growth of Staphylococcus aureus and Klebsiella pneumoniae by counting the colony numbers. The research was conducted in May 2024 at the Bacteriology Laboratory of the Medical Laboratory Technology Department at Poltekkes Kemenkes Surabaya. This research is classified as a true experimental laboratory study designed with a posttest-only control group design. The test materials used was catfish flour with mass variations of 1, 3, 5, 7, and 9 grams, which were inoculated with Staphylococcus aureus and Klebsiella pneumoniae using the bacterial inoculation spread plate method, and colony counting was performed using a colony counter. The results showed that Staphylococcus aureus and Klebsiella pneumoniae grew on the alternative media made from catfish flour, with growth increasing from 1 gram to 9 grams. Statistical test results indicated no significant difference in the growth of the two on the alternative media at each gram mass variation compared to Nutrient Agar, thus concluding that catfish flour can be used as an alternative to commercially produced media.*

**Keywords:** *Pangasius Fish Flour, Nutrient Agar, Staphylococcus aureus, Klebsiella pneumoniae, Alternative Media*