

## INTISARI

### FORMULASI DAN UJI AKTIVITAS ANTIBAKTERI SEDIAAN SUSPENSI KOMBINASI EKSTRAK DAUN SAMBILOTO (*Andrographis paniculata*) DAN SIWAK (*Salvadora persica*) TERHADAP BAKTERI *Staphylococcus aureus*

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Sambiloto (*Andrographis paniculata*) merupakan tanaman yang memiliki aktivitas antibakteri terhadap bakteri *staphylococcus aureus* yang menyebabkan berbagai macam infeksi di tubuh manusia yang biasanya merupakan flora normal, tetapi dapat berubah menjadi patogen ketika terjadi cedera atau goresan pada permukaan mukosa. Siwak (*Salvadora persica*) merupakan salah satu sunnah yang dilakukan oleh Nabi Muhammad SAW. Senyawa dalam kayu siwak yaitu, flavonoid berfungsi mempercepat penyembuhan luka pada gusi. Penelitian ini merupakan penelitian eksperimental bertujuan membuat formula dari ekstrak daun sambiloto dan siwak dan menguji sifat fisik serta aktivitas antibakterinya terhadap *staphylococcus aureus*. Formulasi ekstrak daun sambiloto dan siwak dibuat dengan variasi konsentrasi yaitu formula 1 (ekstrak daun sambiloto 5% dan siwak 10%), formula 2 (ekstrak daun sambiloto 15% dan siwak 15%), formula 3 (ekstrak daun sambiloto 10% dan siwak 5 %) dan kontrol negatif (suspensi tanpa ekstrak). Uji fisik sediaan suspensi kombinasi ekstrak daun sambiloto dan siwak meliputi uji organoleptic, uji homogenitas, pH, uji bobot jenis, uji viskositas, uji waktu redispersi dan uji aktivitas antibakteri dilakukan dengan metode difusi agar dengan kertas cakram untuk menghitung zona hambat bakteri. Data tersebut dianalisis dengan statistik *One Way ANOVA*. Dengan hasil uji sediaan suspensi yang memenuhi standar mutu evaluasi fisik sediaan. Kemudian untuk aktivitas antibakteri pada formula 1 zona hambatnya 0,6mm, formula 2 zona hambatnya 0,83mm, formula 3 zona hambatnya 1,3mm. Hasil penelitian menunjukkan aktivitas antibakteri yang lemah terhadap bakteri *staphylococcus aureus*.

**Kata kunci** : Daun sambiloto, siwak, antibakteri, suspensi, evaluasi sediaan

**Keterangan** : 1. Peneliti  
2. Pembimbing 1  
3. Pembimbing 2

## **ABSTRACT**

### **FORMULATION AND TESTING OF ANTIBACTERIA ACTIVITY OF SUSPENSION COMBINATION OF SAMBILOTO LEAF EXTRACT (*Andrographis paniculata*) AND SIWAK (*Salvadora persica*) AGAINST BACTERIA *Staphylococcus aureus***

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*Sambiloto (Andrographis paniculata) is a plant that has antibacterial activity against Staphylococcus aureus bacteria which cause various kinds of infections in the human body which are usually normal flora, but can turn into pathogens when there is an injury or scratch on the mucosal surface. Siwak (Salvadora persica) is one of the sunnahs practiced by the Prophet Muhammad SAW. The compounds in miswak wood, flavonoids function to speed up healing of wounds on the gums. This research is an experimental study aimed at making a formula from bitter leaf extract and siwak and testing its physical properties and antibacterial activity against Staphylococcus aureus. The formulation of bitter leaf extract and siwak is made with varying concentrations, namely formula 1 (5% bitter leaf extract and 10% siwak), formula 2 (15% bitter leaf extract and 15% siwak), formula 3 (leaf extract bitter 10% and 5% siwak) and a negative control (suspension without extract). Physical tests of the suspension preparation of the combination of bitter leaf extract and siwak include organoleptic tests, homogeneity tests, pH, specific gravity tests, viscosity tests, redispersion time tests and antibacterial activity tests carried out using the agar diffusion method with disc paper to calculate the bacterial inhibition zone. The data were analyzed using One Way ANOVA statistics. With the results of the suspension preparation test that meets the quality standards for physical evaluation of the preparation. Then for antibacterial activity in formula 1 the inhibition zone is 0.6mm, formula 2 the inhibition zone is 0.83mm, formula 3 the inhibition zone is 1.3mm. The results of the study showed weak antibacterial activity against staphylococcus aureus bacteria.*

**Keywords** : *Sambiloto leaves, siwak, antibacterial, suspension, evaluation of preparations*

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