**FORMULASI *MOUTHWASH* SARI RIMPANG JAHE (*Zingiber officinale* Roschoe)DAN UJI AKTIVITAS ANTIBAKTERI TERHADAP *Streptococcus mutans****.***DAN SPESIMEN SALIVA**

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**ABSTRAK**

Halitosis adalah bau nafas tak sedap yang keluar dari rongga mulut dapat disebabkan oleh plak gigi merupakan lengketan yang terbentuk pada permukaan gigi disebabkan oleh bakteri. Bakteri yang sangat berperan dalam pembentukan plak gigi adalah *Streptococcus mutans.* Tujuan penelitian untuk mendapatkan sediaan *mouthwash* dari bahan alami sari rimpang jahe *(Zingiber officinale* Roschoe*)* yang mempunyai aktivitas antibakteri dan rasional untuk menjaga kebersihan dan perawatan kesehatan mulut.

Sari rimpang jahe dipersiapkan dari rimpang jahe segar dengan pelarut akuades dan diuji aktivitas antibakteri terhadap *Streptococcus mutans.* Selanjutnya diformulasikan ke dalam sediaan *mouthwash* konsentrasi30%, 40% dan 50% menggunakan formula dasar campuran gom arab, sorbitol, natrium benzoat, dan dilakukan pengujian mutu terdiri dari uji organoleptis dan kesukaan, pH, stabilitas dan aktivitas antibakteri dengan cara perhitungan angka lempeng total pada spesimen saliva sukarelawan sebelum dan setelah penggunaan sediaan.

Hasil penelitian menunjukkan sari rimpang jahe mengandung metabolit sekunder yang mempunyai aktivitas sebagai antibakteri yaitu, flavonoid, tanin, saponin, alkaloid, glikosida, triterpenoid dan minyak atsiri. Aktivitas antibakteri terhadap *Streptococcus mutans* paling kuat pada konsentrasi 50% dengan diameter hambatan 20,17 ± 0,29 dan yang paling kecil hambatan pada konsentrasi 20% dengan diameter hambatan 12,17 ± 0,29. Sari rimpang jahe dengan konsentrasi 30%, 40%, dan 50% dapat diformulasikan dalam sediaan *mouthwash*. Uji Ph rata-rata berkisar antara 6,0 - 6,7. Sediaan *mouthwash* yang sangat disukai panelis pada sediaan konsentrasi 40%.Sediaan *mouthwash* mempunyai aktivitas antibakteri terhadap saliva dengan pengujian angka lempeng total terhadap spesimen saliva paling kuat sediaan konsentari 50% terjadi pengurangan koloni bakteri sebesar 53,57 ± 1,82 hampir sama dengan sediaan Listerin® sebesar 53,76 ± 4,74.

**Kata Kunci :** Antibakteri, jahe, *mouthwash, Streptococcus mutans*.

***THE FORMULATION OF MOUTHWASH FROM GINGER RHIZOME JUICE (Zingiber officinale Roschoe) AND TEST OF ANTIBACTERIA ACTIVITY ON Streptococcus mutans AND SPECIMEN SALIVA***

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***ABSTRACT***

*Halitosis is a poor breath that comes out of the oral cavity can be caused by dental plaque is a stickiness that forms on the surface of the teeth containing bacteria. Bacteria that is instrumental in the formation of dental plaque is Streptococcus mutant. The purpose of this research is to obtain mouthwash preparations from natural ingredients from ginger (Zingiber officinale Roschoe) extract which has antibacterial and rational activity to maintain hygiene and care of oral.*

*Ginger rhizome juice was prepared from fresh ginger rhizome with distilled water and tested for antibacterial activity against Streptococcus mutans. Furthermore, it is formulated into mouthwash preparations of 30%, 40% and 50% concentrations using a basic formula of a mixture of Arabic gum, sorbitol, sodium benzoate, and quality testing consists of organoleptic and preference tests, pH, stability and antibacterial activity by calculating total plate numbers in saliva volunteer specimens before and after the use of the preparation.*

 *The results showed that ginger rhizome extract contains secondary metabolites which have antibacterial activity, namely, flavonoids, tannins, saponins, alkaloids, glycosides, triterpenoids and essential oils. The antibacterial activity against Streptococcus mutans was strongest at a concentration of 50% with an inhibition diameter of 20.17 ± 0.29 and the smallest resistance at a concentration of 20% with a diameter of inhibition of 12.17 ± 0.29. Ginger rhizome extract with a concentration of 30%, 40%, and 50% can be formulated in a mouthwash preparation. The average Ph test ranged from 6.0 to 6.7. Mouthwash preparation that is very preferred by panelists is a concentration of 40%. Mouthwash preparations have antibacterial activity against saliva by testing the total plate count against the strongest saliva specimens, 50% concentrations, there was a reduction in bacterial colonies by 53.57 ± 1.82, almost the same as Listerin® preparations of 53.76 ± 4.74.*

**Keywords:** *antibacterial, ginger, mouthwash, Streptococcus mutans.*