

DAFTAR PUSTAKA

- Abka-khajouei R, Tounsi L, Shahabi N, Patel AK, Abdelkafi S, Michaud P. Structures, Properties and Applications of Alginates. Mar. Drugs 2022, 20, 364. <https://doi.org/10.3390/md20060364>.
- Ahmad A, Mubarak N, Jannat FT, Ashfaq T, Santulli C, Rizwan M, Najda A. et al. A Critical Review on the Synthesis of Natural Sodium Alginate Based Composite Materials: An Innovative Biological Polymer for Biomedical Delivery Applications. Processes 2021, 9, 137. <https://doi.org/10.3390/pr9010137>.
- Ahmad N, Zawawi NDA, Muhammad NFA, Nasir SH, Arzmi MH. The effect of disinfection protocols on dimensional accuracy of irreversible hydrocolloids and *Candida albicans* colonisation. IIUM Journal of Orofacial and Health Sciences 2024, 5(2), 142–152. <https://doi.org/10.31436/ijohs.v5i2.324>.
- Ahmed D, Ghaffar A, Saniour S, El-Bab FI. Evaluation of Experimentally Prepared Dental Alginate Impression Material Effect of composition of alginate impression material on recovery from deformation. In Journal of American Science 2011 (Vol. 7, Issue 9). <http://www.americanscience.org><http://www.americanscience.org>.
- Altaf J, Malik MHA, Chaudry S, Mushtaq MA, Munir MU, Shah AA. The effect of sodium hypochlorite disinfectant on the linear dimensional stability of alginate impression material. The Professional Medical Journal 2022, 29; 9. <https://doi.org/10.29309/TPMJ/2022.29.09.6200>.
- Appa FE. Penelusuran Metabolit Sekunder Ekstrak Aseton Rosemary (*Rosmarinus officinalis L.*) Dan Potensi Ekstrak Sebagai Antivirus Dengue. Makassar. Fakultas Matematika Dan Ilmu Pengetahuan Alam Universitas Hasanuddin Makassar, 2020.
- Aryanto M, Alawiyah T, Firdaus i. The Antibacterial Effect Of Rosemary (*Rosmarinus Officinalis L.*) On Enterococcus Faecalis Bacteria As An Alternative For Root Canal Irrigation. International Journal of Research – Granthaalayah 2023 11(10), 92–99. <https://doi.org/10.29121/granthaalayah.v11.i10.2023.5305>.
- Astuti NKA, Sumantri S, Nasir IA. The Effect of 25% Betel Leaves and 0.2% Chlorhexidine as Disinfectant Materials on The Dimensional Stability of Alginate Molds. IJKG 2021, 17(2), 103-109. <https://doi.org/10.46862/interdental.v17i2.2937>.
- Babiker GH, Khalifa N, Alhajj MN. Dimensional Accuracy of Alginate Impressions Using Different Methods of Disinfection With Varying Concentrations. Compend Contin Educ Dent. 2018 Jan;39(1):e17-e20. PMID: 29293017.
- Badrian H, Ghasemi E, Khalighinejad N, Hosseini N. The Effect of Three Different Disinfection Materials on Alginate Impression by Spray Method. ISRN Dentistry 2012, 1-5. <https://doi.org/10.5402/2012/695151>.
- 
- aguekelova A, Sailybayeva A, Kozhakhmetov S, Mussabay K, Kossumov A, et al. Unraveling Acute and Post-COVID Cytokine Signature to Anticipate Future Challenges. J. Clin. Med 2023, 12, 5224. <https://doi.org/10.3390/jcm12165224>.
- PWU. Effect of alginate impression disinfection with sodium hypochlorite and castor oil on *Candida albicans* counts and dimensional stability of alginate impressions. J. Clin. Dent. 2018, 49, 10–14. <https://doi.org/10.1080/02751907.2017.1390003>.

the study model. Indonesian Journal of Prosthodontics June 2022; 3(1): 47-52.
<https://doi.org/10.46934/ijp.v3i1.36>.

Bouloumpasi E, Hatzikamari M, Lazaridou A, Chatzopoulou P, Biliaderis CG, Irakli M. Antibacterial and Antioxidant Properties of Oregano and Rosemary Essential Oil Distillation By-Products. Biol. Life Sci. Forum 2021, 6, 47. <https://doi.org/10.3390/Foods2021-11020>.

Budiman JA, Octarina, Sahelangi O. Pengembangan Gipsum Bahan Bangunan sebagai Bahan Gipsum Kedokteran Gigi bidang Ortodonti (Uji Sifat dan Karakteristik). Fakultas Kedokteran Gigi Universitas Trisakti, 2020.

Cangara CJ. Pengaruh Teknik Disinfeksi Cetakan Alginat dengan Perasan Bawang Putih (*Allium sativum L.*) terhadap Stabilitas Dimensi Model Gips. FKG Unhas. Universitas Hasanuddin Fakultas Kedokteran Gigi Makassar, 2015.

Cervio C, Fiorillo L, Herford AS, Laino L, Troiano G, Amoroso G, Crimi S, et al. Alginate Materials and Dental Impression Technique: A Current State of the Art and Application to Dental Practice. Mar. Drugs 2019, 17, 18; <https://doi.org/10.3390/md17010018>.

Chung I, Ryu H, Yoon SY, Ha JC. Health effects of sodium hypochlorite: Review of published case reports. In Environmental Analysis Health and Toxicology 2022 (Vol. 37, Issue 1). <https://doi.org/10.5620/eaht.2022006>.

Diouchi J, Marinković J, Nemoda M, El Rhaffari L, Toure B, Ghoul S. In Vitro Methods for Assessing the Antibacterial and Antibiofilm Properties of Essential Oils as Potential Root Canal Irrigants A Simplified Description of the Technical Steps. Methods Protoc 2024, 7, 50. <https://doi.org/10.3390/mps7040050>.

Duran-Pinedo AE, Frias-Lopes. Beyond microbial community composition: functional activities of the oral microbiome in health and disease. Microbes and Infection 2015, 17:505-516. <https://doi.org/10.1016/j.micinf.2015.03.014>.

Esati NK, La EOJ, Lestari GAD. Uji Aktivitas Antioksidan Ekstrak Etanol Daun Rosemary (*Rosemarinus officinalis L.*) dengan Metode DPPH dan FRAP serta Pengaplikasiannya sebagai Zat Aktif dalam Losion. Jurnal Sains Dan Kesehatan 2022, 4(4), 363-369. <https://doi.org/10.25026/jsk.v4i4.1129>.

Eva AFZ, Chotimah C, Abdi MJ, Biba AT, Amiruddin M, Sartina. Pengaruh Penyemprotan Cetakan Alginat Dengan Sodium Hipoklorit 0.5%, Lidah Buaya 50% Terhadap Dimensi Model Positif. Sinnun Maxillofacial Journal 2019, 01(02). <https://doi.org/10.33096/smj.v1i02.47>.

Fransiska A, Nurliyani RP, Nofika R. Effect of Spraying Time of Sodium Hypochlorite Solution on the Dimensional Stability of Alginate. Journal of International Dental and Medical Research 2024, 17 (1), 156-157.



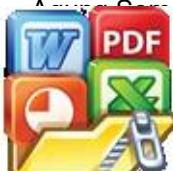
Uji Antimikroba Obat Herbal. Jurnal Herbal Medik 2013, 6(3) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC322800077/> Metode-Uji-Antimikroba-Obat-Herbal.

: D, Jovicevic M, Milenkovic M, Mitic Culafic D, Tradic, et al. (2022). Susceptibility Testing: A Comprehensive Review of Currently Used Methods. Antimicrob Agents Chemother 2022, 11,427. <https://doi.org/10.3390/antibiotics11040427>.

- Ghahramanloo A, Sadeghian A, Sohrabi K, Bidi A. A Microbiologic Investigation Following the Disinfection of Irreversible Hydrocolloid Materials Using the Spray Method. *CDA Journal* 2009, 37(7), 471-477. <https://doi.org/10.1080/19424396.2009.12222997>.
- Guiraldo RD, Borsato TT, Berger SB, Lopes MB, Gonini-Jr A, Sinhoreti MAC. Surface detail reproduction and dimensional accuracy of stone models: influence of disinfectant solutions and alginate impression materials. *Braz. Dent. J.* 2012; 23 (4). <https://doi.org/10.1590/S0103-64402012000400018>.
- Hasanah NY, Arya IW, Rachmadi P. Efek Penyemprotan Disinfektan Larutan Daun Sirih 80% Terhadap Stabilitas Dimensi Cetakan alginat. *Dentino (Jur. Ked. Gigi)* 2014, Vol 2. No 1.
- Hashemi SMB, Gholamhosseinpour A, Barba FJ. (2023). Rosmarinus officinalis L. Essential Oils Impact on the Microbiological and Oxidative Stability of Sarshir (Kaymak). *Molecules* 2023, 28, 4206. <https://doi.org/10.3390/molecules28104206>.
- Jalal NA, Al-Atyyani RA, Al-Said HM, Ashgar SS, Faidah H, Johargy AK, Momenah AM, et al. (2023). Comparative Assessment of Antimicrobial Efficacy of Seven Surface Disinfectants against Eight Bacterial Strains in Saudi Arabia: An In Vitro Study. *Microbiol. Res.* 2023, 14, 819–830. <https://doi.org/10.3390/microbiolres14030058>.
- Kamel DG, Mansour AIA, El-diin MAHN, Hammam ARA, Mehta D, Abdel-Rahman AM. (2022). Using Rosemary Essential Oil as a Potential Natural Preservative during Stirred-like Yogurt Making. *Foods* 2022, 11, 1993. <https://doi.org/10.3390/foods11141993>.
- Kloy A, Ahmad J, Yusuf U, Muhammad M. (2020). Antibacterial Properties of Rosemary (Rosmarinus Officinalis). *South Asian Research Journal of Pharmaceutical Sciences* 2020, Vol-2, Iss-1: 4-7. <https://doi.org/10.36346/sarjps.2020.v02i01.002>.
- Kotecha N, Shah NC, Doshi RJ, Kishan KV, Luke AM, Shetty KP, Mustafa M, Pawar AM. (2023). Microbiological Effectiveness of Sodium Hypochlorite Gel and Aqueous Solution When Implemented for Root Canal Disinfection in Multirooted Teeth: A Randomized Clinical Study. *J. Funct. Biomater.* 2023, 14, 240. <https://doi.org/10.3390/jfb14050240>.
- Leung KS, Leung HH, Wu CY, Galano JM, Durand T, Lee JCY. (2019). Limited Antioxidant Effect of Rosemary in Lipid Oxidation of Pan-Fried Salmon. *Biomolecules* 2019, 9, 313; <https://doi.org/10.3390/biom9080313>.
- Macedo LMd, Santos ÉMD, Ataide JA, Silva GTS, Guarnieri JPO, Lancellotti M, Jozala AF, et al. (2022). Development and Evaluation of an Antimicrobial Formulation Containing Rosmarinus officinalis. *Molecules* 2022, 27, 5049. <https://doi.org/10.3390/molecules27165049>.
- Manar J, Jarkas M. (2018). International Journal of Applied Dental Sciences Alginat as ial., 2018 300(3), 300-303. <https://doi.org/10.22271/oral>.
- de Miguel. T. (2022). Antimicrobial Activity of Polyphenols and nolic Extracts on Clinical Isolates. *Antibiotics* 2022, 11, 46. <https://doi.org/10.3390/antibiotics11010046>.
- Mancilla, Parades A, Loyola LA, Gallardo O, Borquez J. (2003). Solutes from Four Medicinal Plants from Northern Chile, Antimicrobial



- Activity, and Biotoxicity against Artemia salina. Journal Chile Chem 2003. 48 (2). <http://dx.doi.org/10.4067/S0717-97072003000200002>.
- Mukhriani. (2014). Ekstraksi, pemisahan senyawa dan identifikasi senyawa aktif. Jurnal Kesehatan. 2014 Vol VII, No.2.
- Nieto G, Ros G, Castillo J. (2018). Antioxidant and Antimicrobial Properties of Rosemary (*Rosmarinus officinalis L.*): A Review. Medicines 2018, 5(3), 98. <https://doi.org/10.3390/medicines5030098>.
- Nohu, MAS. (2017). Pengaruh Penyemprotan Larutan Perasan *Aloe Vera* 25% dan 50% Terhadap Stabilitas Dimensi Cetakan Alginat Di Laboratorium Dental Material FKG UMI Tahun 2017.
- Nurasyfa RF, Priani SE, Cahya G, Darma E. (2019). Formulasi Sediaan Emulgel Mengandung Minyak Atsiri Rosemary (*Rosmarinus officinalis L.*) Serta Uji Aktivitasnya Sebagai Antijerawat Terhadap Bakteri *Propionibacterium Acnes*. Prosiding Farmasi 2019. Vol 5, No 2. <http://dx.doi.org/10.29313/v0i0.18104>.
- Nuta DC, Limban C, Chirita C, Chifiriuc MC, Costea T, Ionita P, Nicolau I, Zarafu I. (2021) Contribution of Essential Oils to the Fight against Microbial Biofilms—A Review. Processes 2021, 9, 537. <https://doi.org/10.3390/pr9030537>.
- Octarina, Raharja J. The Effect of Seal Bag Storage on Dimensional Stability of Alginate Impression Material. Scientific Dental Journal 03 2018, 93-99. <http://dx.doi.org/10.26912/sdj.v2i3.3097>.
- Park S, Mun S, Kim YR. Influences of added surfactants on the water solubility and antibacterial activity of rosemary extract. Food Sci Biotechnol 2020, 29(10), 1373-1380. <https://doi.org/10.1007/s10068-020-00792-w>.
- Pieracci Y, Ciccarelli D, Giovanelli S, Pistelli L, Flaminii G, Cervelli C, Mancianti F, et al. Antimicrobial Activity and Composition of Five *Rosmarinus* (Now *Salvia* spp. and Varieties) Essential Oils. Antibiotics 2021, 10, 1090. <https://doi.org/10.3390/antibiotics10091090>.
- Pinos CC, Tome MM, Murica MA, Jordan MJ, Banon S. Assessment of Rosemary (*Rosmarinus officinalis L.*) Extract as Antioxidant in Jelly Candies Made with Fructan Fibres and Stevia. Antioxidants 2020, 9, 1289; <https://doi.org/10.3390/antiox9121289>.
- Pintero G, Usai M, Bradesi P, Juliano C, Boatto G, Tomi F, et al. Chemical composition and antimicrobial activity of *Rosmarinus officinalis L.* oils from Sardinia and Corsica. Flavour and Fragrance Journal 2002, 17: 15-19. <https://doi.org/10.1002/ffj.1022>.
- Rainanda DA. Evaluasi In Vitro Kontaminasi Bakteri Dan Efek Sodium Hipoklorit 0.5% Pada Buccal Tube Ortodontik. Fakultas Kedokteran Gigi Universitas Islam Sultan Ageng Tengah | 2021.



Alanazi AS, Noman O. Phytochemical Analysis and Antimicrobial activity of *Rosmarinus officinalis L.* Growing in Saudi Arabia: Experimental and Theoretical Approaches. Processes 2022, 10(11). <https://doi.org/10.3390/pr10112422>.

Solorza JML, Ayala-Zavala JF, Cruz-Valenzuela MR, González-Aguilar GA, Mercado ATB, Gutierrez-Pacheco MM, Silva-Espinoza BA. Oregano Essential Oil versus Conventional Disinfectants against *Salmonella Typhimurium* and *Escherichia coli* O157:H7 Biofilms and Damage to Stainless-Steel Surfaces. *Pathogens* 2023, 12, 1245. <https://doi.org/10.3390/pathogens12101245>.

Tambuhan DNPH, Zulkarnain M. Pengaruh penyemprotan ekstrak bunga rosella dan larutan sodium hipoklorit terhadap stabilitas dimensi cetakan polivinil siloksan: penelitian eksperimental laboratoris. *Jurnal Kedokteran Gigi Universitas Padjadjaran* 2023, 35(1), 78. <https://doi.org/10.24198/jkg.v35i1.39861>.

Todoric O, Pezo L, Šaric L, Kolarov V, Varga A, Cabarkapa I, Kocic-Tanackov S. Comparison of the Efficiency of Selected Disinfectants against Planktonic and Biofilm Populations of *Escherichia coli* and *Staphylococcus aureus*. *Microorganisms* 2023, 11, 1593. <https://doi.org/10.3390/microorganisms11061593>.

Trivedi R, Sangur R, Bathala LR, Srivastava S, Madhav S, Chaubey P. Evaluation of efficacy of *Aloe Vera* as a Disinfectant by Immersion and Spray methods on Irreversible Hydrocolloid Impression Material and its Effect on the Dimensional Stability of Resultant Gypsum Cast - An in Vitro Study. *J Med Life.* 2019 Oct-Dec;12(4):395-402. <https://doi.org/10.25122/jml-2019-0050>.

Tsitlakidou P, Kamplioni D, Kyriakoudi A, Irakli M, Biliaderis CG, Mourtzinos I. Antioxidant-Enhanced Alginate Beads for Stabilizing Rapeseed Oil: Utilizing Extracts from Post-Distillation Waste Residues of Rosemary. *Foods* 2024, 13, 2142. <https://doi.org/10.3390/foods13132142>.

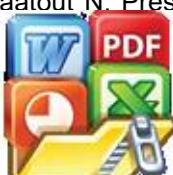
Walid Y, Majdi H, Saber K, Taycir GA, Wissem AW, Moufida ST. Antibacterial activities of rosemary (*Rosmarinus officinalis* L.) essential oil and ethanol extract. *Multidisciplinary Studies,* 2022, 03(01), 001–008. <https://doi.org/10.53022/oarjms.2022.3.1.0073>.

Widyastari T, Harlia E, Tanti Marlina, E. Effectiveness of *Aloe Vera* Outer Leaf as a Natural Disinfectant on Inhibition Potential and Reduction of Inhibition Total Number Bacteria in Milk Room. *Fakultas Peternakan Universitas Padjadjaran* 2015.

Wijaya CD, Hutagalung MHP, Hulu LKP. Comparison of Dimensional Stability of Alginate Impressions by Spraying 0.5% Sodium Hypochlorite Against Kepok Banana Peel Extract (*Musa paradisiaca* Linn.). *Bioscientia Medicina* 2023, 2598-0580. <https://doi.org/10.37275/bsm.v6i18.741>.

Yan Y, Xia X, Fatima A, Zhang L, Yuan G, Lian F, Wang Y. (2024). Antibacterial Activity and Mechanisms of Plant Flavonoids against Gram-Negative Bacteria Based on the Antibacterial Statistical Model. *Pharmaceuticals* 2024, 17, 292. <https://doi.org/10.3390/ph17030292>.

Zaatout N. Presence of non-oral bacteria in the oral cavity. *Arch Microbiol* 2021, 203, [://doi.org/10.1007/s00203-021-02300-y](https://doi.org/10.1007/s00203-021-02300-y).



an HS, Li R. Review of the Antimicrobial Properties of Rosemary Preservative Functions. *IJBLs* 2024, 5(3), 54097/4vdyy358.

Zografos I, Maistreli IZ, Sabatakakis AA, Chrysomali E. Escherichia coli and Enterococcus spp. isolation in maxillary osteomyelitis: a case report and literature review with special consideration of immunocompetent individuals. Oral Surgery 2013, 7(3), 187–193. <https://doi.org/10.1111/ors.12069>.



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LAMPIRAN

a. Surat izin penelitian



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Nomor : 03113/UN4.13/PT.01.04/2024
 Hal : Izin Penelitian

15 Juni 2024

Yth.

1. Dekan Fakultas Kedokteran Gigi
 2. Dekan Fakultas Kedokteran
 3. Dekan Fakultas Farmasi
- Universitas Hasanuddin

Dengan hormat kami sampaikan bahwa mahasiswa **Program Studi Magister (S2) Ilmu Kedokteran Gigi** Fakultas Kedokteran Gigi Universitas Hasanuddin bermaksud untuk melakukan penelitian.

Sehubungan dengan hal tersebut, mohon kiranya dapat diberikan izin penelitian kepada peneliti di bawah ini:

Nama / NIM	:	Wildanul Jihad / J012222004
Waktu Penelitian	:	Juli s.d. Agustus 2024
Tempat Penelitian	:	Laboratorium Fakultas Kedokteran Gigi Universitas Hasanuddin, Laboratorium Fitokimia Fakultas Farmasi Universitas Hasanuddin, dan Laboratorium Mikrobiologi Fakultas Kedokteran Universitas Hasanuddin
Pembimbing	:	1. Dr. Lenni Indriani, drg., M.Kes. 2. Dr. Juni Jekti Nugroho, drg., Sp.KG., Subsp.KE (K).
Judul Penelitian	:	Aktivitas Antimikroba dan Stabilitas Dimensi Cetakan Alginat setelah Penyemprotan Ekstrak <i>Etanol Rosemary (Rosmarinus officinalis L.)</i> dan Sodium Hipoklorit: Penelitian Eksperimental Laboratoris

Demikian permohonan kami, atas perhatian dan kerjasama yang baik diucapkan terima kasih.

a.n. Dekan,
 Wakil Dekan Bidang Akademik dan Kemahasiswaan



Acing Habibie Mude, drg., Ph.D., Sp.Pros., Subsp.OGST(K).
 NIP 198102072008121002

Tembusan:
 Kepala Bagian Tata Usaha FKG Unhas.



b. Surat rekomendasi etik

**KEMENTERIAN PENDIDIKAN, KEBUDAYAAN,
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Nomor : 03114/UN4.13/TP.02.02/2024 15 Juni 2024
 Hal : Permohonan Rekomendasi Etik

Yth. Direktur Rumah Sakit Gigi dan Mulut Pendidikan (RSGMP)
 Universitas Hasanuddin
 Makassar

Dengan hormat kami sampaikan bahwa mahasiswa Program Studi Magister (S2) Ilmu Kedokteran Gigi Fakultas Kedokteran Gigi Universitas Hasanuddin di bawah ini:

Nama / NIM : Wildanul Jihad / J012222004
 Pembimbing : 1. Dr. Lenni Indriani, drg., M.Kes.
 2. Dr. Juni Jekti Nugroho, drg., Sp.KG., Subsp.KE (K).
 Judul Penelitian : Aktivitas Antimikroba dan Stabilitas Dimensi Cetakan Alginat setelah Penyemprotan Ekstrak Etanol Rosemary (*Rosmarinus officinalis L.*) dan Sodium Hipoklorit: Penelitian Eksperimental Laboratoris

bermaksud melakukan penelitian di Laboratorium Fakultas Kedokteran Gigi Universitas Hasanuddin, Laboratorium Fitokimia Fakultas Farmasi Universitas Hasanuddin, dan Laboratorium Mikrobiologi Fakultas Kedokteran Universitas Hasanuddin pada bulan Juli s.d. Agustus 2024.

Untuk maksud tersebut di atas, mohon kiranya yang bersangkutan dapat diberikan surat rekomendasi Etik dalam rangka pelaksanaan penelitiannya.

Demikian permohonan kami, atas perhatian dan kerjasama yang baik diucapkan terima kasih.

a.n. Dekan,
 Wakil Dekan Bidang Akademik dan Kemahasiswaan

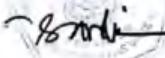


Acing Habibie Mude, drg., Ph.D., Sp.Pros., Subsp.OGST(K).
 NIP 198102072008121002

Tembusan:
 1. Dekan FKG Unhas (sebagai laporan);
 2. Kepala Bagian Tata Usaha FKG Unhas.



c. Surat persetujuan etik

KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET, DAN TEKNOLOGI UNIVERSITAS HASANUDDIN FAKULTAS KEDOKTERAN GIGI RUMAH SAKIT GIGI DAN MULUT PENDIDIKAN KOMITE ETIK PENELITIAN KESEHATAN Sekretariat : JL.Kandea No. 5 Makassar Lantai 2, Gedung Lama RSGM Unhas			
REKOMENDASI PERSETUJUAN ETIK Nomor: 0159/PL.09/KEPK FKG-RSGM UNHAS/2024			
Tanggal: 9 Juli 2024			
Dengan ini menyatakan bahwa protokol dan dokumen yang berhubungan dengan protokol berikut ini telah mendapatkan persetujuan etik:			
No. Protokol	UH 17121169	No Protokol Sponsor	
Peneliti Utama	Wildanul Jihad	Sponsor	Pribadi
Judul Peneliti	Aktivitas Antimikroba dan Stabilitas Dimensi Cetakan Alginat Setelah Penyemprotan Ekstrak Etanol Rosemary (<i>Rosmarinus officinalis L.</i>) dan Sodium Hipoklorit: Penelitian Eksperimental Laboratorium		
No. Versi Protokol	1	Tanggal Versi	12 Juni 2024
No. Versi Protokol		Tanggal Versi	
Tempat Penelitian	Laboratorium Fakultas Kedokteran Gigi Universitas Hasanuddin, Laboratorium Fitokimia Fakultas Farmasi Universitas Hasanuddin, dan Laboratorium Mikrobiologi Fakultas Kedokteran Universitas Hasanuddin		
Dokumen Lain			
Jenis Review	<input checked="" type="checkbox"/> Exempted Review <input type="checkbox"/> Expedited Review <input type="checkbox"/> Fullboard Review	Masa Berlaku 9 Juli 2024 - 9 Juli 2025	Frekuensi Review Lanjutan
Ketua Komisi Etik Penelitian	Nama: drg.Ernii Marlina, Ph.D., Sp.PM., SubSp.Inf (K)	Tanda Tangan 	Tanggal 9 Juli 2024
Sekretaris Komisi Etik Penelitian	Nama: drg. Muhammad Ikbal, Sp.Pros	Tanda Tangan 	Tanggal 9 Juli 2024

Kewajiban peneliti utama:

- Menyerahkan Amandemen Protokol untuk persetujuan sebelum diimplementasikan
- Menyerahkan laporan SAE ke Komisi Etik dalam 24 jam dan dilengkapi dalam 7 hari dan lapor SUSAR dalam 72 jam setelah peneliti utama menerima laporan.
- Menyerahkan laporan kemajuan (*progress report*) setiap 6 bulan untuk penelitian resiko tinggi dan setiap setahun untuk penelitian resiko rendah.
- Menyerahkan laporan akhir setelah penelitian berakhir.
- Melaporkan penyimpangan dari protokol yang disetujui (*protocol deviation/violation*)
- Mematuhi semua aturan yang berlaku.



d. Dokumentasi penelitian





e. cawan petri zona hambat



f. pengukuran pembuatan konsentrasi larutan

Konsentrasi	Ekstrak (gr) + Aquades (ml)
12,5%	1,25 gr + 10 ml
25%	5 gr + 20 ml
50%	10 gr + 20 ml



g. Hasil pengukuran stabilitas dimensi

No	Tanpa penyemprotan		Larutan NaOCl 0,5%		Larutan rosemary 50%	
	AB	BC	AB	BC	AB	BC
1	35,1 mm	46,3 mm	36,3 mm	47,3 mm	36,5 mm	47,3 mm
2	35,5 mm	46,5 mm	36,4 mm	47,4 mm	36,8 mm	47,6 mm
3	35,7 mm	46,7 mm	36,5 mm	47,5 mm	36,3 mm	47,4 mm
4	35,6 mm	46,4 mm	36,4 mm	47,5 mm	36,4 mm	47,4 mm
5	35,8 mm	46,6 mm	36,4 mm	47,4 mm	36,8 mm	47,6 mm
6	35,7 mm	46,6 mm	36,4 mm	47,5 mm	36,6 mm	47,5 mm
7	35,4 mm	46,7 mm	36,3 mm	47,4 mm	36,3 mm	47,3 mm
8	35,6 mm	46,6 mm	36,6 mm	47,5 mm	36,6 mm	47,6 mm
9	35,6 mm	46,6 mm	36,6 mm	47,5 mm	36,6 mm	47,5 mm



h. Uji normalitas

Tests of Normality

Dimensi Stabilitas	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
AB	Tanpa Penyemprotan	.252	9	.105	.881	9
	NaOCl 0,5%	.284	9	.035	.863	9
	Rosemary 50%	.172	9	.200*	.906	9
BC	Tanpa Penyemprotan	.297	9	.021	.874	9
	NaOCl 0,5%	.333	9	.005	.763	9
	Rosemary 50%	.195	9	.200*	.870	9

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction



i. Uji Kruskall Wallis

Descriptives

Dimensi Stabilitas		Statistic	Std. Error	
AB	Tanpa Penyemprotan	Mean	35.5556	.06894
		95% Confidence Interval for Mean		
		Lower Bound	35.3966	
		Upper Bound	35.7145	
		5% Trimmed Mean	35.5673	
		Median	35.6000	
		Variance	.043	
		Std. Deviation	.20683	
		Minimum	35.10	
		Maximum	35.80	
		Range	.70	
		Interquartile Range	.25	
		Skewness	-1.409 .717	
		Kurtosis	2.472 1.400	
	NaOCl 0,5%	Mean	36.4333	.03727
		95% Confidence Interval for Mean		
		Lower Bound	36.3474	
		Upper Bound	36.5193	
		5% Trimmed Mean	36.4315	
		Median	36.4000	
		Variance	.013	
		Std. Deviation	.11180	
		Minimum	36.30	
		Maximum	36.60	
		Range	.30	
		Interquartile Range	.20	
		Skewness	.537 .717	
		Kurtosis	-800 1.400	
	Rosemary 50%	Mean	36.5444	.06261
		95% Confidence Interval for Mean		
		Lower Bound	36.4001	
		Upper Bound	36.6888	
		5% Trimmed Mean	36.5438	
		Median	36.6000	
		Variance	.035	
		Std. Deviation	.18782	
		Minimum	36.30	
		Maximum	36.80	
		Range	.50	
		Interquartile Range	.35	
		Skewness	.038 .717	
		Kurtosis	-1.098 1.400	

BC	Tanpa Penyemprotan	Mean	46.5556	.04444
		95% Confidence Interval for Mean		
		Lower Bound	46.4531	
		Upper Bound	46.6580	
		5% Trimmed Mean	46.5617	
		Median	46.6000	
		Variance	.018	
		Std. Deviation	.13333	
		Minimum	46.30	
		Maximum	46.70	
		Range	.40	
		Interquartile Range	.20	
		Skewness	-.966	.717
		Kurtosis	.299	1.400
	NaOCl 0,5%	Mean	47.4444	.02422
		95% Confidence Interval for Mean		
		Lower Bound	47.3886	
		Upper Bound	47.5003	
		5% Trimmed Mean	47.4494	
		Median	47.5000	
		Variance	.005	
		Std. Deviation	.07265	
		Minimum	47.30	
		Maximum	47.50	
		Range	.20	
		Interquartile Range	.10	
		Skewness	-1.014	.717
		Kurtosis	.185	1.400
		Mean	47.4667	.04082
		95% Confidence Interval for Mean		
		Lower Bound	47.3725	
		Upper Bound	47.5608	
		5% Trimmed Mean	47.4685	
		Median	47.5000	
		Variance	.015	
		Std. Deviation	.12247	
		Minimum	47.30	
		Maximum	47.60	
		Range	.30	
		Interquartile Range	.25	
		Skewness	-.233	.717
		Kurtosis	-1.556	1.400



AB across Dimensi Stabilitas

Independent-Samples Kruskal-Wallis Test Summary

Total N	27
Test Statistic	18.368 ^a
Degree Of Freedom	2
Asymptotic Sig.(2-sided test)	.000

a. The test statistic is adjusted for ties.

Pairwise Comparisons of Dimensi Stabilitas

Sample 1-Sample 2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj. Sig. ^a
Tanpa Penyemprotan-NaOCl 0,5%	-11.944	3.709	-3.220	.001	.004
Tanpa Penyemprotan-Rosemary 50%	-15.056	3.709	-4.059	.000	.000
NaOCl 0,5%-Rosemary 50%	-3.111	3.709	-.839	.402	1.000

Each row tests the null hypothesis that the Sample 1 and Sample 2 distributions are the same.

Asymptotic significances (2-sided tests) are displayed. The significance level is .05.

a. Significance values have been adjusted by the Bonferroni correction for multiple tests.

BC across Dimensi Stabilitas

Independent-Samples Kruskal-Wallis Test Summary

Total N	27
Test Statistic	17.985 ^a
Degree Of Freedom	2
Asymptotic Sig.(2-sided test)	.000

a. The test statistic is adjusted for ties.

Pairwise Comparisons of Dimensi Stabilitas

Sample 1-Sample 2	Test Statistic	Std. Error	Std. Test Statistic	Sig.	Adj. Sig. ^a
Tanpa Penyemprotan-NaOCl 0,5%	-12.889	3.687	-3.496	.000	.001
Tanpa Penyemprotan-Rosemary 50%	-14.111	3.687	-3.827	.000	.000
NaOCl 0,5%-Rosemary	-1.222	3.687	-.331	.740	1.000



pothesis that the Sample 1 and Sample 2 distributions are the

(2-sided tests) are displayed. The significance level is .05.

have been adjusted by the Bonferroni correction for multiple tests.