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LAMPIRAN

1. Tabel *Oral Presentation* dan Publikasi Artikel Ilmiah

a. Jurnal Ilmiah

No	Judul Karya Ilmiah	Jenis Karya Ilmiah	Periode Kegiatan	Identifikasi Karya Ilmiah
1.	The Effect Of Ramania Leaves Extract Gel (Bouea macrophylla Griff) On The Number Of Osteoblast (in vivo Study of Post Extraction in Wistar Rats (Rattus norvegicus))	Jurnal Internasional Bereputasi Scopus Q3 (Accepted)	Desember 2023	Pharmacognosy Journal
				ISSN: 0975-3575. https://drive.google.com/file/d/1VAIXIPF15YjkDxzX3G_P82wiDxxHChN4/view?usp=sharing
2.	The Effect of Ramania Leaves Extract (Bouea macrophylla Griff) Gel on Macrophage Counts and Neovascularization in Tooth Extraction Socket Healing of Rattus norvegicus	Jurnal Internasional Bereputasi Scopus Q2 (Under Review)	Desember 2023	Journal of Law and Sustainable Development
				ISSN: 2764-4170 https://drive.google.com/file/d/1pvpTX6CEDZaiK7mbRIU3lx7v-B2grd01/view?usp=sharing
3.	In Silico Study Anti-Inflammatory of Active Compound of Ramania Leaves Extract (Bouea macrophylla Griffith) Against Protein Kinase C- β	Jurnal Internasional Bereputasi Scopus Q3 (Published)	September 2023	Seybold Report Journal; Vol. 18; No. 07; Hal. 77-90. 2023.
				ISSN: 1533 – 9211 https://seybold-report.com/wp-content/uploads/2023/09/Irham-23.pdf
				https://seybold-report.com/
4.	An in Silico Study Anti-Inflammatory Activity of Active Compounds Bouea macrophylla Griff Against Toll Like Receptors-4	Jurnal Internasional (Published)	September 2023	European Chemical Bulletin; Vol. 12; No.3; Hal. 2845-2859. 2023.
				ISSN: 2063-5346 https://www.eurchembull.com/issue-content/an-in-silico-study-anti-inflammatory-activity-of-active-compounds-bouea-macrophylla-griff-against-toll-like-receptors-4-13997
				https://www.eurchembull.com/uploads/paper/811fb8e1bd2bda31e3aac88c87294c21.pdf
5.	An In Silico Study Anti-Inflammatory of Active		Juni 2023	Azerbaijan Medical Journal; Vol. 63; No. 06;

	Compound of Ramania Leaves Extract (Bouea macrophylla Griffith) Against Angiopoietin-2	Jurnal Internasional Bereputasi Scopus Q4 (Published)		Hal. 9651-9663. June 2023 ISSN: 0005-2523 https://www.azerbaijanmedicaljournal.net/article/an-in-silico-study-anti-inflammatory-of-active-compound-of-ramania-leaves-extract-bouea-macrophylla-griffith-against-angiopoietin-2 https://www.azerbaijanmedicaljournal.net/volume/AMJ/63/06/an-in-silico-study-anti-inflammatory-of-ramania-leaves-extract-bouea-macrophylla-griffith-against-angiopoietin-2-6497d945e5bdb.pdf
6.	The Effect Of Binjai Leaves Extract Gel (Mangifera Caesia) And Ramania Leaves Extract Gel (Bouea Macrophylla Griffith.) On The Number Of Fibroblast Cells In Incisional Wound Of Male Rats (Rattus Norvegicus)	Jurnal Internasional Bereputasi Scopus Q4 (Published)	Mei 2023	Azerbaijan Medical Journal; Vol. 63; No. 05; Hal. 9271-9279. May 2023. ISSN: 0005-2523 https://www.azerbaijanmedicaljournal.net/article/the-effect-of-binjai-leaves-extract-gel-mangifera-caesia-and-ramania-leaves-extract-gel-bouea-macrophylla-griffith-on-the-number-of-fibroblast-cells-in-incisional-wound-of-male-rats-rattus-norvegicus http://www.azerbaijanmedicaljournal.net/volume/AMJ/63/05/the-effect-of-binjai-leaves-extract-gel-mangifera-caesia-and-ramania-leaves-extract-gel-bouea-macrophylla-griffith-on-the-number-of-fibroblast-cells-in-incisional-wound-of-male-rats-rattus-norvegicus-64684d19e0c4b.pdf
7.	Ramania (Bouea Macrophylla Griffith) extract	Jurnal Internasional Bereputasi	Januari-Maret 2023	The Journal of International Medical Sciences Academy; Vol

	as a wound healing agent: A Literature Review	Scopus Q4 (Published)		36; No. 1; Hal. 125-127. January – March 2023. ISSN : 0971071X https://drive.google.com/file/d/1KrZdQNYahaq-Ea823EQB1xCnQi8iWoRO/view?usp=sharing
8.	Potential of Bioactive Tea Herbal Compounds As Antioxidants Among Stachys., Camellia., & Bouea Macrophylla Griffith (Comparative-Literature Review)	Prosiding Seminar Internasional (Published)	November 2022	Proceedings of International Conference on Medical, Medicine and Health Sciences (ICMMH) Istanbul Turkey; Hal. 26-29; 06th November 2022. https://drive.google.com/file/d/1bdeY5DhX1ZmcvOjg9wQUqdNEEpezAEDm/view?usp=sharing
9.	The Effect of Ramania Leaf (Bouea Macrophylla Griff) Extract Gel on The Number of Fibroblast Cells of Incision in Male Wistar Rats (Rattus norvegicus)	Jurnal Ilmiah Nasional Terindex Sinta 3 (Published)	Maret 2022	Dentino (Jur. Ked. Gigi); Vol. VII; No. 1; Hal. 6 – 11. March 2022. P-ISSN 2337-5310. E-ISSN 2527-4937 https://drive.google.com/file/d/1bw84-60VDmjGkhOmY93532HSCw_ShEXG/view?usp=sharing
10	The Comparison Of Ramania (Bouea Macrophylla Griff) And Binjai (Mangifera Caesia) Leaves Extract Gel Effect On Collagen Density	Jurnal Ilmiah Nasional Terindex Sinta 3 (Published)	September 2021	Dentino (Jur. Ked. Gigi); Vol. VI; No. 2; Hal. 159 – 165. September 2021. P-ISSN 2337-5310. E-ISSN 2527-4937 https://drive.google.com/file/d/1F5P26w2kEiKO3mcnQtxROHQIRGXquPUd/view?usp=sharing

b. Oral Presentation

No	Nama Kegiatan & Judul Karya Ilmiah	Jenis Karya Ilmiah	Periode Kegiatan	Identifikasi Karya Ilmiah
1.	Sebagai Pembicara pada Seminar Nasional Lahan Basah 3rd HESICON dengan Topik: "Pengaruh Gel Ekstrak Daun Ramania (<i>Bouea macrophylla</i> Griff) Konsentrasi 15% terhadap Ketebalan Epitel (Studi In vivol Pasca Pencabutan Gigi Tikus Wistar (<i>Rattus norvegicus</i>))"	Oral Presentation	12-14 Desember 2022	https://drive.google.com/file/d/1XO7ODXme8zU0E5o905f7SUuOIkYGI26K/view?usp=sharing
2.	Sebagai Best Oral Presentation 1 Seminar Nasional Lahan Basah 3rd HESICON dengan Topik: "Pengaruh Gel Ekstrak Daun Ramania (<i>Bouea macrophylla</i> Griff) Konsentrasi 15% terhadap Ketebalan Epitel (Studi In vivol Pasca Pencabutan Gigi Tikus Wistar (<i>Rattus norvegicus</i>))"	Oral Presentation	12-14 Desember 2022	https://drive.google.com/file/d/1AgV3Ku2Na1IzsBEfEaEIRxcFlwmqvpTd/view?usp=sharing
3.	Sebagai Pembicara pada International Conference on Medical, Medicine and Health Sciences (ICMMH) 2022 dengan Topik: "Potential of Bioactive Tea Herbal Compounds As Antioxidants Among <i>Stachys.</i> , <i>Camellia.</i> , & <i>Bouea Macrophylla</i> Griffith (Comparative-Literature Review)"	Oral Presentation	6 November 2022	https://drive.google.com/file/d/10OVBK2BObA5z9rSFm5dqV93d6oXGd1b5/view?usp=sharing
4.	Sebagai Pembicara pada International Bioinformatics and Biodiversity Conference dengan Topik: "In Silico Study of Antiinflammatory Activity of Ramania (<i>Bouea macrophylla</i> griff) Leaf	Oral Presentation	5 November 2022	https://drive.google.com/file/d/18yKthWleQSF6rbJW2j4DFci3ceo7AJhg/view?usp=sharing

	Extract Against Kinase C-b Protein”			
5.	Sebagai Pembicara pada Seminar Nasional Lahan Basah 2022 dengan Topik: “Analysis In Silico Senyawa Fitokimia dari Fraksi Etanol dan Fraksi n-Hexan Daun Ramania (Bouea macrophylla griff) Sebagai Agen Proses Penyembuhan Luka”	Oral Presentation	1-2 November 2022	https://drive.google.com/file/d/136gAfHst9b2Bgk0K94LihLQr32GQmMW_/view?usp=sharing
6.	Sebagai Pembicara pada BEST in Dentistry 2022 dengan Topik: “In Silico Study of Antiinflammatory Activity of Ramania (Bouea macrophylla griff) Leaf Extract Against Cyclooxygenase-2 Enzyme”	Oral Presentation	23 Oktober 2022	https://drive.google.com/file/d/1V9aY2KfOIJbBobejhW1TIHvf3D1Yd6V5/view?usp=sharing
7.	Sebagai Pembicara pada AADOCR (American Association for Dental, Oral, and Craniofacial Research) Annual Meeting & Exhibition 2022 dengan Topik: “ Ramania (Bouea Macrophylla Griffith) Leaf Exrtract as Herbal Medicine: A Literatur Review”	Oral Presentation	21-26 Maret 2022	https://drive.google.com/file/d/1cFdq1HmfHQEGOuGMVqdiKrCGxiSptJ1h/view?usp=sharing
8.	Sebagai Pembicara pada The 2 nd International Conference on Nutrition And Public Health (ICNPH) 2021 dengan Topik: “Ramania (Bouea macrophylla Griffith) Extract as a Wound Healing Agent: A Literature Review”	Oral Presentation	29-30 November 2021	https://drive.google.com/file/d/1ohtGgSZ7eSyMAXI3RXGpXZhZ6R-4DZoi/view?usp=sharing

c. Monograf

No	Judul Karya Ilmiah	Jenis Karya Ilmiah	Periode Kegiatan	Identifikasi Karya Ilmiah
1.	Potensi Daun Ramania (Bouea Macrophylla Griffith) Dibidang Kesehatan: Studi Biokemoinformatika	Monograf (<i>Under Review</i>)	November 2023	https://drive.google.com/file/d/1w1DaH2KMc yxa8yvTtqwjApaZeuFq15s-/view?usp=sharing

2. Ethical Clearance



**KOMISI ETIK PENELITIAN KESEHATAN
FAKULTAS KEDOKTERAN GIGI
UNIVERSITAS LAMBUNG MANGKURAT BANJARMASIN - INDONESIA
*THE ETHICAL COMMITTEE OF MEDICAL RESEARCH ETHICS
DENTISTRY FACULTY
UNIVERSITY OF LAMBUNG MANGKURAT BANJARMASIN – INDONESIA***

**KETERANGAN KELAIKAN ETIK
(ETHICAL CLEARANCE)**

No. 069/KEPKG-FKGULM/EC/IV/2023

Komisi Etik Kesehatan Fakultas Kedokteran Gigi Universitas Lambung Mangkurat dengan memperhatikan hak asasi manusia dan kesejahteraan dalam penelitian kedokteran, setelah mempelajari dengan seksama rancangan penelitian yang diusulkan, dengan ini menyatakan bahwa penelitian dengan :

The Committee Of Medical Research Ethics Of Dentistry Faculty, Lambung Mangkurat University, with regards of the protection of human rights and welfare in medical research, has carefully reviewed the proposal entitled :

Judul :

Title :

**PEMANFAATAN DAUN RAMANIA (*Bouea macrophylla* Griffith)
UNTUK PENCEGAHAN KERADANGAN DAN PENYEMBUHAN LUKA**

***UTILIZATION OF RAMANIA LEAVES (*Bouea macrophylla* Griffith)
FOR INFLAMMATION PREVENTION AND WOUND HEALING***

Nama Peneliti : Irham Taufiqurrahman
Name of the investigator

Nama Institusi : Program Doktor Ilmu Kesehatan Masyarakat
Name of Institution Universitas Hasanuddin Makassar
***Doctor of Public Health Study Program
University Of Hasanuddin Makassar***

DINYATAKAN LAIK ETIK
Approved for ethical clearance

Banjarmasin, 06 April 2023
Komisi Etik Penelitian,
The ethical committee research



drg. Sherli Diana, Sp.KG
NIP. 198702272019032020

3. Tabel Aktivitas Enzim SOD

Jenis Pemeriksaan : SOD
 Bahan : Serum
 Metode : Spektrofotometri

No	0 Jam					12 Jam				
	Protein		SOD			Protein		SOD		
	Abs	Kadar(mg/L)	to	t1		Abs	Kadar(mg/L)	to	t1	
K0	0,349	3,605	0,124	0,070	0,024	0,473	2,660	0,096	0,084	0,009
K1	0,289	4,353	0,106	0,061	0,020	0,508	2,476	0,101	0,088	0,010
K2	0,241	5,220	0,148	0,101	0,012	0,414	3,039	0,102	0,070	0,021
K3	0,261	4,820	0,130	0,104	0,008	0,511	2,462	0,074	0,073	0,001
K4	0,363	3,466	0,114	0,097	0,009	0,488	2,578	0,094	0,063	0,028
K5	0,311	4,045	0,110	0,101	0,004	0,436	2,885	0,097	0,095	0,001
K6	0,286	4,399	0,188	0,099	0,022	0,303	4,152	0,112	0,070	0,018
K7	0,430	2,926	0,131	0,122	0,005	0,492	2,557	0,094	0,071	0,019
K8	0,276	4,558	0,122	0,066	0,020	0,510	2,467	0,111	0,098	0,009
No	48 Jam					72 Jam				
	Protein		SOD			Protein		SOD		
	Abs	Kadar(mg/L)	to	t1		Abs	Kadar(mg/L)	to	t1	
K0	0,218	5,771	0,181	0,095	0,016	0,538	2,338	0,196	0,169	0,012
K1	0,184	6,837	0,098	0,084	0,004	0,521	2,415	0,110	0,107	0,002
K2	0,370	3,400	0,111	0,098	0,007	0,435	2,892	0,119	0,110	0,005
K3	1,691	0,744	0,135	0,108	0,054	0,489	2,573	0,132	0,115	0,010
K4	0,428	2,939	0,130	0,120	0,005	0,474	2,654	0,150	0,117	0,017
K5	0,574	2,192	0,143	0,136	0,004	0,393	3,201	0,126	0,116	0,005
K6	0,576	2,184	0,147	0,093	0,034	0,837	1,503	0,165	0,156	0,007
K7	0,576	2,184	0,115	0,090	0,020	0,916	1,373	0,112	0,112	0,000
K8	0,608	2,069	0,318	0,178	0,043	0,984	1,278	0,124	0,115	0,011

4. Tabel Aktivitas Enzim Katalase

Jenis Pemeriksaan : Katalase
 Bahan : Serum
 Metode : Spektrofotometri

No	0 Jam					12 Jam				
	Protein		Katalase			Protein		Katalase		
	Abs	Kadar(mg/L)	to	t1		Abs	Kadar(mg/L)	to	t1	
K0	0,349	3,605	0,099	0,096	0,341	0,473	2,660	0,101	0,079	3,691
K1	0,289	4,353	0,129	0,118	0,818	0,508	2,476	0,181	0,159	2,091
K2	0,241	5,220	0,079	0,035	6,231	0,414	3,039	0,189	0,086	10,353
K3	0,261	4,820	0,238	0,215	0,842	0,511	2,462	0,257	0,124	11,828
K4	0,363	3,466	0,132	0,116	1,490	0,488	2,578	0,649	0,276	13,252
K5	0,311	4,045	0,105	0,105	0,000	0,436	2,885	0,149	0,03	22,194
K6	0,286	4,399	0,076	0,051	3,624	0,303	4,152	0,235	0,143	4,780
K7	0,43	2,926	0,386	0,38	0,214	0,492	2,557	0,102	0,068	6,336
K8	1,276	0,986	0,128	0,127	0,318	0,51	2,467	0,164	0,0118	42,629
No	24 Jam					48 Jam				
	Protein		Katalase			Protein		Katalase		
	Abs	Kadar(mg/L)	to	t1		Abs	Kadar(mg/L)	to	t1	
K0	0,218	5,771	0,122	0,092	1,954	0,538	2,338	0,025	0,020	3,813
K1	0,184	6,837	0,098	0,094	0,244	0,521	2,415	0,028	0,022	3,991
K2	0,370	3,400	0,070	0,058	2,210	0,435	2,892	0,026	0,017	5,870
K3	1,691	0,744	0,348	0,344	0,621	0,489	2,573	0,030	0,024	3,466
K4	0,428	2,939	0,095	0,088	1,040	0,474	2,654	0,015	0,010	6,104
K5	0,574	2,192	0,109	0,093	2,894	0,393	3,201	0,023	0,021	1,136
K6	0,576	2,184	0,055	0,036	7,753	0,837	1,503	0,024	0,021	3,550
K7	0,576	2,184	0,325	0,247	5,021	0,916	1,373	0,028	0,024	4,485
K8	0,608	2,069	0,253	0,230	1,840	0,984	1,278	0,044	0,040	2,979

5. Tabel Aktivitas Enzim GPx

Jenis Pemeriksaan : GPx
 Bahan : Serum
 Metode : Spektrofotometri

No	0 jam			12 jam			24 jam			48 jam		
	Abs Non Enzym	Abs Enzym	Kadar (U/l)	Abs Non Enzym	Abs Enzym	Kadar (U/l)	Abs Non Enzym	Abs Enzym	Kadar (U/l)	Abs Non Enzym	Abs Enzym	Kadar (U/l)
K0	0,049	0,027	24,444	0,110	0,083	30,000	0,073	0,031	46,667	0,079	0,019	66,667
K1	0,041	0,023	20,000	0,123	0,086	41,111	0,062	0,020	46,667	0,083	0,012	78,889
K2	0,040	0,025	16,667	0,122	0,083	43,333	0,081	0,034	52,222	0,105	0,039	73,333
K3	0,049	0,027	24,444	0,132	0,086	51,111	0,093	0,049	48,889	0,096	0,027	76,667
K4	0,045	0,032	14,444	0,113	0,077	40,000	0,110	0,055	61,111	0,095	0,037	64,444
K5	0,090	0,070	22,222	0,123	0,080	47,778	0,127	0,079	53,333	0,078	0,021	63,333
K6	0,043	0,031	13,333	0,108	0,079	32,222	0,216	0,167	54,444	0,709	0,658	56,667
K7	0,049	0,027	24,444	0,099	0,061	42,222	0,109	0,056	58,889	0,363	0,291	80,000
K8	0,057	0,036	23,333	0,130	0,091	43,333	0,084	0,032	57,778	0,165	0,095	77,778

Keterangan :

- K0 Kelompok kontrol, tanpa teh ramania, tanpa teh Camellia Sinensis, tanpa gel ekstrak ramania 15% dan tanpa gel ekstrak pegagan
- K1 Kelompok perlakuan dengan teh Camellia Senesis, tanpa gel ekstrak ramania 15% dan tanpa gel ekstrak pegagan
- K2 Kelompok perlakuan dengan teh Ramania, tanpa gel ekstrak ramania 15% dan tanpa gel ekstrak pegagan
- K3 Kelompok perlakuan dengan teh Camellia sinensis dengan gel ekstrak pegagan
- K4 Kelompok perlakuan dengan teh ramania, dengan gel ekstrak pegagan
- K5 Kelompok perlakuan dengan teh Camellia sinensis, dengan gel ekstrak ramania 15%
- K6 Kelompok perlakuan dengan teh ramania, dengan gel ekstrak ramania 15%
- K7 Kelompok perlakuan tanpa teh camellia sinensis dan tanpa teh ramania, dengan gel ekstrak pegagan
- K8 Kelompok perlakuan tanpa teh Camellia sinensis dan tanpa teh ramania, dengan gel ekstrak ramania 15%

6. Tabel Indeks Eritema

Kel	Hari	Indeks Eritema					Rerata
		T1	T2	T3	T4	T5	
K0	1	1,33802802	1,36441511	1,34021788	1,29875844	1,30529071	1,32934203
	2	1,22642443	1,19022573	1,23081072	1,15805527	1,25569206	1,21224164
	3	1,1859855	1,1774564	1,15442231	1,2157012	1,17881199	1,18247548
	4	1,20854818	1,21532133	1,20021109	1,20575925	1,21398644	1,20876526
	5	1,24884478	1,24990495	1,25659078	1,26665565	1,16089826	1,23657888
	6	1,1632575	1,19435392	1,20520104	0,94080371	1,2475699	1,15023721
	7	1,20048446	1,19863052	1,17416736	1,17704103	1,19792391	1,18964946
	8	1,16417504	1,15254407	1,14404187	1,15382155	1,14305284	1,15152707
	9	1,05314232	1,05024005	1,05260591	1,05341373	1,0539865	1,0526777
	10	1,05406294	1,04728672	1,05006302	1,04888964	1,04860038	1,04978054
	11	1,03723554	1,03770156	1,03887163	1,03823534	1,03948857	1,03830653
	12	1,03996539	1,03945761	1,0402239	1,03991052	1,04085445	1,04008237
	13	1,13804249	1,14131528	1,138246	1,13924667	1,14719792	1,14080967
	14	1,06118416	1,06009898	1,05855918	1,05844878	1,05887706	1,05943363

Kel	Hari	Indeks Eritema					Rerata
		T1	T2	T3	T4	T5	
K ₁	1	1,26259393	1,40212955	1,21785232	1,40976985	1,2129882	1,30106677
	2	1,20964391	1,34880926	1,23337325	1,26490486	1,16936257	1,24521877
	3	1,14855228	1,13531619	1,2433654	1,27832051	1,13592858	1,18829659
	4	1,32386704	1,17477934	1,20085363	1,17710396	1,15234338	1,20578947
	5	1,17207188	1,2	1,20404505	1,17023397	1,15596179	1,18046254
	6	1,15409568	1,19636155	1,19974887	1,19944874	1,24866505	1,19966398
	7	1,11984926	1,10897077	1,10439401	1,12228361	1,14537711	1,12017495
	8	1,31678618	1,3073415	1,30851883	1,29537775	1,27627752	1,30086036
	9	1,35234168	1,34026631	1,33472548	1,32444512	1,33981474	1,33831867
	10	1,33089837	1,30988771	1,33271709	1,33514535	1,32199618	1,32612894
	11	1,09466452	1,09601858	1,09644373	1,10280979	1,09866915	1,09772115
	12	1,10960739	1,10686144	1,10852646	1,10893079	1,11051275	1,10888777
	13	1,09164134	1,08820036	1,0915227	1,08850823	1,09153662	1,09028185
	14	1,09270721	1,09785506	1,07864061	1,08596577	1,09493321	1,09002037

Kel	Hari	Indeks Eritema					Rerata
		T1	T2	T3	T4	T5	
K ₂	1	1,2349574	1,2756444	1,2961227	1,2091227	1,34973724	1,27311689
	2	1,28590038	1,31814918	1,20919705	1,14538974	1,14582452	1,22089218
	3	1,37522486	1,12755413	1,22991186	1,12160813	1,36970196	1,24480019
	4	1,11327984	1,11719948	1,14207972	1,21030675	1,21682522	1,1599382
	5	1,20124449	1,22586922	1,19654332	1,22984368	1,22465141	1,21563042
	6	1,19308838	1,19589036	1,20374242	1,19979637	1,24828487	1,20816048
	7	1,16676864	1,19877214	1,2214807	1,19579369	1,18751081	1,19406519
	8	1,16047106	1,16128663	1,15681008	1,16026806	1,16759764	1,16128669
	9	1,07613546	1,0774221	1,07644046	1,07989706	1,07834002	1,07764702
	10	1,0809151	1,08053053	1,077997	1,08203044	1,08142584	1,08057978
	11	1,0768794	1,07163348	1,06952389	1,06727652	1,06666054	1,07039477
	12	1,06467746	1,065923	1,0650612	1,06362436	1,06687299	1,0652318
	13	1,1131727	1,11716451	1,11387177	1,11078298	1,11508437	1,11401526
	14	1,1026405	1,10659261	1,11196754	1,1133058	1,11195257	1,1092918

Kel	Hari	Indeks Eritema					Rerata
		T1	T2	T3	T4	T5	
K ₃	1	1,30009129	1,24657752	1,25392557	1,23153184	1,31655463	1,26973617
	2	1,16649319	1,20109265	1,27150893	1,22423824	1,23096188	1,21885898
	3	1,26432028	1,20321577	1,28548097	1,19986586	1,19376986	1,22933055
	4	1,2394698	1,22325396	1,44773409	1,23132794	1,21448038	1,27125323
	5	1,25552538	1,2544858	1,23710857	1,26821192	1,21880557	1,24682745
	6	1,1982739	1,23295213	1,20247633	1,19034715	1,1958742	1,20398474
	7	1,2460617	1,17798811	1,18532323	1,23772272	1,20919995	1,21125914
	8	1,19496588	1,20425404	1,18749757	1,20030016	1,20081106	1,19756574
	9	1,09290832	1,0892814	1,0909406	1,089875	1,08750353	1,09010177
	10	1,09114137	1,08982236	1,09751804	1,08926617	1,094073	1,09236419
	11	1,06354344	1,06107952	1,06168198	1,06477109	1,06429178	1,06307356
	12	1,06373146	1,06356183	1,06459776	1,0635524	1,06518797	1,06412628
	13	1,12054942	1,12242323	1,11983474	1,11942561	1,11755148	1,1199569
	14	1,11958628	1,12081299	1,11739923	1,12032768	1,11781777	1,11918879

Kel	Hari	Indeks Eritema					Rerata
		T1	T2	T3	T4	T5	
K ₄	1	1,19655978	1,18517224	1,22309717	1,52843617	1,23574321	1,27380172
	2	1,24594126	1,37063953	1,25618154	1,38028885	1,2543415	1,30147853
	3	1,17409089	1,24002295	1,21005823	1,10880379	1,3168628	1,20996773
	4	1,16275027	1,171865	1,16212465	1,03869513	1,13879794	1,1348466
	5	1,15381341	1,1407812	1,14563718	1,18280689	1,20239013	1,16508576
	6	1,16162904	1,15719448	1,17509708	1,16912755	1,14951215	1,16251206
	7	1,24784431	1,18422807	1,18663951	1,23126423	1,20761539	1,2115183
	8	1,13620692	1,13614745	1,13539184	1,13311843	1,13886764	1,13594646
	9	1,09919873	1,10345014	1,10387684	1,10220979	1,10121287	1,10198968
	10	1,10502937	1,10125726	1,1009671	1,10043243	1,1048891	1,10251505
	11	1,08192414	1,08394649	1,08335029	1,08170647	1,08640584	1,08346665
	12	1,07993714	1,08311776	1,08983895	1,08550673	1,08859463	1,08539904
	13	1,09779405	1,09436003	1,09113976	1,10491267	1,09179113	1,09599953
	14	1,10220743	1,09721233	1,10126601	1,10634888	1,09635458	1,10067785

Kel	Hari	Indeks Eritema					Rerata
		T1	T2	T3	T4	T5	
K ₅	1	1,30897791	1,45297551	1,3151161	1,37120943	1,403185	1,37029279
	2	1,2105088	1,4669409	1,34736576	1,31071792	1,23591129	1,31428893
	3	1,34119991	1,23343413	1,3228024	1,2335457	1,3451381	1,29522405
	4	1,39312832	1,41976505	1,3980397	1,27367135	1,30510925	1,35794273
	5	1,33734596	1,38185935	1,39500868	1,3047522	1,26961524	1,33771629
	6	1,3556693	1,3388903	1,35630863	1,37883819	1,33172519	1,35228632
	7	1,23731352	1,22596335	1,23131026	1,2258934	1,24198858	1,23249382
	8	1,22566067	1,21353171	1,18757759	1,2064323	1,16567973	1,1997764
	9	1,10072472	1,07613407	1,07815865	1,07406662	1,07255532	1,08032788
	10	1,09975506	1,09800977	1,10335492	1,10121509	1,10234276	1,10093552
	11	1,08053398	1,08322182	1,08188404	1,0810341	1,08048359	1,08143151
	12	1,08931788	1,08501571	1,08579643	1,08230204	1,08647673	1,08578176
	13	1,07330238	1,07767635	1,08174221	1,07609858	1,07922414	1,07760873
	14	1,07228051	1,08267474	1,08469183	1,07633319	1,07582469	1,07836099


Kel	Hari	Indeks Eritema					Rerata
		T1	T2	T3	T4	T5	
K ₆	1	1,38954858	1,72137604	1,36488662	1,6471796	1,32239624	1,48907742
	2	1,44311894	1,33365404	1,31275616	1,28174247	1,44162952	1,36258023
	3	1,39108176	1,45654517	1,33553186	1,26478102	1,33806252	1,35720047
	4	1,41155302	1,34103854	1,39170494	1,24616407	1,28716622	1,33552536
	5	1,27004814	1,31628585	1,31047332	1,26620684	1,29608445	1,29181972
	6	1,34857162	1,28498495	1,37168582	1,35380827	1,37640052	1,34709024
	7	1,19401703	1,20823414	1,17069793	1,17200946	1,23268566	1,19552884
	8	1,34386661	1,36889465	1,3099251	1,4112872	1,37534942	1,3618646
	9	1,47253869	1,47284243	1,46242262	1,45342565	1,47066215	1,46637831
	10	1,46872857	1,47126245	1,47749202	1,46076501	1,46189872	1,46802935
	11	1,16786757	1,16929833	1,1650961	1,17394564	1,16675535	1,1685926
	12	1,21551607	1,22396062	1,21771183	1,20918374	1,22539535	1,21835352
	13	1,16154865	1,15735504	1,16210423	1,16414153	1,12465261	1,15396041
	14	1,14477631	1,15008379	1,1467071	1,15807437	1,16159285	1,15224688

Kel	Hari	Indeks Eritema					Rerata
		T1	T2	T3	T4	T5	
K ₇	1	1,40452233	1,18659473	1,23688584	1,25571036	1,68000786	1,35274423
	2	1,27306354	1,25601382	1,22202133	1,23965379	1,24904982	1,24796046
	3	1,32077234	1,28055768	1,27037978	1,24629182	1,28598873	1,28079807
	4	1,23336666	1,21522955	1,22725406	1,21878483	1,15303818	1,20953466
	5	1,2524256	1,24264287	1,22844316	1,23002253	1,22946036	1,23659891
	6	1,27660114	1,29229971	1,25842361	1,32950166	1,31034143	1,29343351
	7	1,21971913	1,22915901	1,23273239	1,21623248	1,23253652	1,2260759
	8	1,19646669	1,13561056	1,28924831	1,28939693	1,25203684	1,23255187
	9	1,09284918	1,09271611	1,09110205	1,08513738	1,09300922	1,09096279
	10	1,09140613	1,09224109	1,08905973	1,08703225	1,09433583	1,09081501
	11	1,11320909	1,11141821	1,11138156	1,11316127	1,10659845	1,11115372
	12	1,13273798	1,12700957	1,12629131	1,12921964	1,12756677	1,12856505
	13	1,13804249	1,14131528	1,138246	1,13924667	1,14719792	1,14080967
	14	1,14376772	1,14858825	1,13733148	1,14553091	1,13820154	1,14268398

Kel	Hari	Indeks Eritema					Rerata
		T1	T2	T3	T4	T5	
K ₈	1	1,24303939	1,36471018	1,31425163	1,31521866	1,30690281	1,30882454
	2	1,3550665	1,29317514	1,21761569	1,21208639	1,29317514	1,27422377
	3	1,21480997	1,15119769	1,29463276	1,13645411	1,1564496	1,19070883
	4	1,47027176	1,43242276	1,67269139	1,67540369	1,42977651	1,53611322
	5	1,50383091	1,75313633	1,52108767	1,47878993	1,44915574	1,54120012
	6	1,30840686	1,38069777	1,36915857	1,33743505	1,38011797	1,35516324
	7	1,21721925	1,22197132	1,21477779	1,22169598	1,21480997	1,21809486
	8	1,28548417	1,28260583	1,27035838	1,30008027	1,27681312	1,28306835
	9	1,09286043	1,09127721	1,08853305	1,08412972	1,09349486	1,09005905
	10	1,09106781	1,09071434	1,08925222	1,08567328	0,93417876	1,05817728
	11	1,11235838	1,11157271	1,11255096	1,11216292	1,10687053	1,1111031
	12	1,13153921	1,12760915	1,12884788	1,12814165	1,12916797	1,12906117
	13	1,13644011	1,14780452	1,14272771	1,14208084	1,14137524	1,14208568
	14	1,14396606	1,15355334	1,13930523	1,14120694	1,14166734	1,14393978

7. Sertifikat Hasil Uji Determinasi Daun Ramania

5.1 Kabupaten Banjarbaru



KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA
Alamat: Jl. Jend. A. Yani Km. 35,8 Denpasar Telp/Fax: (0311) 4772826, website: www.labdasar-unlam.org

SERTIFIKAT HASIL UJI
Nomor: 033.d/LB.LABDASAR/II/2021

Nomor Referensi	: II-21-020	Tanggal Masuk	: 19 Februari 2021
Nama	: Rizki Ramadhiyanti M.	Tanggal Selesai	: 22 Februari 2021
Institusi	: FKG ULM	Hasil Analisis	: Determinasi
No. Invoice	: 030/TS-02/2021	Jenis Tumbuhan	: Daun Ramania

HABITUS
Pohon, tinggi mencapai 25 m.

DAUN
Daun bundar telur memanjang sampai lanset atau jorong, permukaan daun mengkilat dan berujung runcing, tepi daun rata, ukuran daun antara 11-45 cm (panjang) dan 4 – 13 cm (lebar).


BATANG
Batang silindris, warna coklat.

AKAR
Akar tunggang.

BUAH
Buah batu, buah membulat dengan diameter antara 2.5-5 cm, buah muda berwarna hijau, buah tua dan matang buah berwarna kuning hingga jingga, mengeluarkan cairan kental, rasa agak asam hingga manis; bijinya berwarna ungu.

BUNGA
Bunga muncul dari ketiak daun berbentuk malai, berwarna kekuningan yang kemudian berubah kecoklatan.

NAMA LOKAL
Ramania (Kalimantan Selatan), Asam kundang atau kundangan (Malaysia), gandaria (Jawa), jatake, gandaria (Sunda), ramieu (Gayo), barania (Dayak ngaju), dondoriah (Minangkabau), wates (Sulawesi Utara), Kalawasa, rapo-rapo kebo (Makasar), buwa melawe (Bugis).



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KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA

Alamat: Jl. Jend. A. Yani Km. 35,8 Banjarbaru Telp/Fax: (0511) 4772826, website: www.labdasar-unlam.org

SERTIFIKAT HASIL UJI
Nomor: 033.d/LB.LABDASAR/II/2021

KLASIFIKASI

Kingdom : Plantae
Divisi : Magnoliophyta
kelas : Magnoliopsida
Ordo : Sapindales
Family : Anacardiaceae
Genus : Bouea
Species : *Bouea macrophylla* Griffith.



Banjarnbaru, 23 Februari 2021

Manager Puncak,

Dr. Fozik Wianto, S.Si., M.Si.

NIP. 19780504 200312 1 004

5.2 Kabupaten Rantau



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA

Alamat: Jl. Jend. A. Yani Km. 35,8 Banjarbaru Telp./Fax. 05111-4772826, website: www.labdasar-ulm.org

SERTIFIKAT HASIL UJI
Nomor: 153a/LB.LABDASAR/VIII/2022

Nomor Referensi	: VII-22-006	Tanggal Masuk	: 21 Juli 2022
Nama	: Irham Taufiqurrahman	Tanggal Selesai	: 15 Agustus 2022
Institusi	: FKG ULM	Hasil Analisis	: Determinasi
No. Invoice	: 172/TS-07/2022	Jenis Tumbuhan	: Ramania

HABITUS

Pohon, tinggi mencapai 25 m.

DAUN

Daun bundar telur memanjang sampai lanset atau jorong, permukaan daun mengkilat dan berujung runcing, tepi daun rata, ukuran daun antara 11- 45 cm (panjang) dan 4 – 13 cm (lebar).

BATANG

Silindris, warna coklat, batang beralur coklat terang, percabangan sering kali melengkung, menyiku atau mendatar.

AKAR

Tanggung.

BUAH

Buah batu, buah membulat dengan diameter antara 2.5-5 cm, buah muda berwarna hijau, buah tua dan matang buah berwarna kuning hingga jingga, mengeluarkan cairan kental, rasa agak asam hingga manis; bijinya berwarna ungu, Biji berukuran diameter 2-5 cm.

BUNGA

Bunga muncul dari ketiak daun berbentuk malai, bunga tetramerus, kecil, cuping kelopak bundar telur melebar, daun mahkota lonjong sampai bundar telur terbalik dan berwarna kekuningan.

NAMA LOKAL

Ramania (Kalimantan Selatan), Asam kundang atau kundangan (Malaysia), gandaria (Jawa), jatake, gandaria (Sunda), remieu (Gayo), barania (Dayak ngaju), dandoriah (Minangkabau), wetes (Sulawesi Utara), Kalawasa, rapo-rapo kebo (Makasar), buwa melawe (Bugis).





KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA

Alamat: Jl. Jend. A. Yani Km. 15,83 Banjarbaru/Telp/Fax: (0511) 4772826, website: www.labdasar-unlam.org

SERTIFIKAT HASIL UJI
Nomor: 153a/LB.LABDASAR/VIII/2022

KLASIFIKASI

Kingdom	:	Plantae
Divisi	:	Magnoliophyta
kelas	:	Magnoliopsida
Ordo	:	Sapindales
Family	:	Anacardiaceae
Genus	:	Bouea
Species	:	<i>Bouea macrophylla</i> Griffith.

Banjarbaru, 16 Agustus 2022

Mangrove Tumpak,

D. H. Trias Wianto, S.Si., M.Si.

NIP. 19760504 200312 1 004

NB : Sampel tanaman ramania diambil di Rantau

5.3 Kabupaten Marabahan



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA

Alamat: Jl. Jend. A. Yani Km. 35,83 Banjarbaru Telp/Fax: (0511) 4772826, website: www.labdasar-ulm.ac.id

SERTIFIKAT HASIL UJI
Nomor: 155a/LB.LABDASAR/VIII/2022

Nomor Referensi	: VII-22-006	Tanggal Masuk	: 21 Juli 2022
Nama	: Irham Taufiqurrahman	Tanggal Selesai	: 15 Agustus 2022
Institusi	: FKG ULM	Hasil Analisis	: Determinasi
No Invoice	: 172/TS-07/2022	Jenis Tumbuhan	: Ramania

HABITUS

Pohon, tinggi mencapai 25 m.

DAUN

Daun bundar telur memanjang sampai lanset atau jorong, permukaan daun mengkilat dan berujung runcing, tepi daun rata, ukuran daun antara 11- 45 cm (panjang) dan 4 – 13 cm (lebar).

BATANG

Silindris, warna coklat, batang beralur coklat terang, percabangan sering kali melengkung, menyiku atau mendatar.

AKAR

Tunggang.

BUAH

Buah batu, buah membulat dengan diameter antara 2.5-5 cm, buah muda berwarna hijau, buah tua dan matang buah berwarna kuning hingga jingga, mengeluarkan cairan kental, rasa agak asam hingga manis; bijinya berwarna ungu, Biji berukuran diameter 2-5 cm.

BUNGA

Bunga muncul dari ketiak daun berbentuk malai; bunga tetramerus, kecil, cuping kelopak bundar telur melebar, daun mahkota lonjong sampai bundar telur terbalik dan berwarna kekuningan.

NAMA LOKAL

Ramania (Kalimantan Selatan), Asam kundang atau kundangan (Malaysia), gandaria (Jawa), jatake, gandaria (Sunda), remieu (Gayo), barania (Dayak ngaju), dandoriah (Minangkabau), wetes (Sulawesi Utara), Kalawasa, rapo-rapo kebo (Makasar), buwa melawe (Bugis).





KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA

Alamat: Jl. Jend. A. Yani Km. 35,8 Banjarbaru Telp/Fax 05111-4772826, website: www.labdasar-unlam.org

SERTIFIKAT HASIL UJI
Nomor: 155a/LB.LABDASAR/VIII/2022

KLASIFIKASI

Kingdom	:	Plantae
Divisi	:	Magnoliophyta
kelas	:	Magnoliopsida
Ordo	:	Sapindales
Family	:	Anacardiaceae
Genus	:	Bouea
Species	:	<i>Bouea macrophylla</i> Griffith.

Banjarbaru, 16 Agustus 2022

Manajer Puncak,

Dr. Tojok Wianto, S.Si., M.Si.

NIP 19780504 200312 1 004

NB : Sampel tanaman ramania diambil di Marabahan

5.4 Kabupaten Kandangan



**KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA**

Alamat: Jl. Jend. A. Yani Km. 35.8 Banjarbaru (Telp/Fax: 0511) 4772826, website: www.labdasar-ulm.org

**SERTIFIKAT HASIL UJI
Nomor: 154a/LB.LABDASAR/VIII/2022**

Nomor Referensi	: VII-22-006	Tanggal Masuk	: 21 Juli 2022
Nama	: Irham Taufiqurrahman	Tanggal Selesai	: 15 Agustus 2022
Institusi	: FKG ULM	Hasil Analisis	: Determinasi
No Invoice	: 172/TS-07/2022	Jenis Tumbuhan	: Ramania

HABITUS

Pohon, tinggi mencapai 25 m.

DAUN

Daun bundar telur memanjang sampai lanset atau jorong, permukaan daun mengkilat dan berujung runcing, tepi daun rata, ukuran daun antara 11- 45 cm (panjang) dan 4 – 13 cm (lebar).

BATANG

Silindris, warna coklat, batang beralur coklat terang, percabangan sering kali melengkung, menyiku atau mendatar.

AKAR

Tumpang.

BUAH

Buah batu, buah membulat dengan diameter antara 2.5-5 cm, buah muda berwarna hijau, buah tua dan matang buah berwarna kuning hingga jingga, mengeluarkan cairan kental, rasa agak asam hingga manis; bijinya berwarna ungu. Biji berukuran diameter 2-5 cm.

BUNGA

Bunga muncul dari ketiak daun berbentuk malai; bunga tetramerus, kecil, cuping kelopak bundar telur melebar, daun mahkota lonjong sampai bundar telur terbalik dan berwarna kekuningan.

NAMA LOKAL

Ramania (Kalimantan Selatan), Asam kundang atau kundangan (Malaysia), gandaria (Jawa), jatake, gandaria (Sunda), remieu (Gayo), barania (Dayak ngaju), dandoriah (Minangkabau), wetes (Sulawesi Utara), Kalawasa, rapo-rapo kebo (Makasar), buwa melawe (Bugis).





KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA

Alamat: Jl. Jend.A. Yani Km. 35,80 Banjarbaru Telp/Fax (0511) 4772826, website: www.labdome-smlm.org

SERTIFIKAT HASIL UJI
Nomor: 154a/LB.LABDASAR/VIII/2022

KLASIFIKASI

Kingdom	:	Plantae
Divisi	:	Magnoliophyta
kelas	:	Magnoliopsida
Ordo	:	Sapindales
Family	:	Anacardiaceae
Genus	:	Bouea
Species	:	<i>Bouea macrophylla</i> Griffith.

Banjarbaru, 16 Agustus 2022

Manajer-Puncak,

Dr. Fotok Wianto, S.Si., M.Si.

NIP. 19780504 200312 1 004

NB : Sampel tanaman ramania diambil di Kandangan

5.5 Kabupaten Balangan



**KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA**

Alamat: Jl. Jend. A. Yani Km. 15,80 Banjarbaru/Telp/Fax: (0511) 4772826, website: www.labdasar-salam.org

**SERTIFIKAT HASIL UJI
Nomor: 156a/LB.LABDASAR/VIII/2022**

Nomor Referensi	: VII-22-006	Tanggal Masuk	: 21 Juli 2022
Nama	: Irham Taufiqurrahman	Tanggal Selesai	: 15 Agustus 2022
Institusi	: FKG ULM	Hasil Analisis	: Determinasi
No Invoice	: 172/TS-07/2022	Jenis Tumbuhan	: Ramania

HABITUS

Pohon, tinggi mencapai 25 m.

DAUN

Daun bundar telur memanjang sampai lanset atau jorong, permukaan daun mengkilat dan berujung runcing, tepi daun rata, ukuran daun antara 11- 45 cm (panjang) dan 4 – 13 cm (lebar).

BATANG

Silindris, warna coklat, batang beralur coklat terang, percabangan sering kali melengkung, menyiku atau mendatar.

AKAR

Tunggang.

BUAH

Buah batu, buah membulat dengan diameter antara 2.5-5 cm, buah muda berwarna hijau, buah tua dan matang buah berwarna kuning hingga jingga, mengeluarkan cairan kental, rasa agak asam hingga manis; bijinya berwarna ungu, Biji berukuran diameter 2-5 cm.

BUNGA

Bunga muncul dari ketiak daun berbentuk malai, bunga tetramerus, kecil, cuping kelopak bundar telur melebar, daun mahkota lonjong sampai bundar telur terbalik dan berwarna kekuningan.

NAMA LOKAL

Ramania (Kalimantan Selatan), Asam kundang atau kundangan (Malaysia), gandaria (Jawa), jatake, gandaria (Sunda), remieu (Gayo), barania (Dayak ngaju), dandoriah (Minangkabau), wetes (Sulawesi Utara), Kalawasa, rapo-rapo kebo (Makasar), buwa melawe (Bugis).





KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA

Alamat: Jl. Jend. A. Yani Km. 35,8 Banjarmasin Telp./fax (0511) 4772826, website: www.labdasar-unlam.org

SERTIFIKAT HASIL UJI
Nomor: 156a/LB.LABDASAR/VIII/2022

KLASIFIKASI

Kingdom	:	Plantae
Divisi	:	Magnoliophyta
kelas	:	Magnoliopsida
Ordo	:	Sapindales
Family	:	Anacardiaceae
Genus	:	Bouea
Species	:	<i>Bouea macrophylla</i> Griffith.

Banjarmasin, 16 Agustus 2022

Manager Praktak,

Dr. Toto Wianto, S.Si., M.Si.

NIP. 19780504 200312 1 004

NB : Sampel tanaman ramania diambil di Balangan

5.6 Kabupaten Pagatan



**KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA**

Alamat: Jl. Jend. A. Yani Km. 35,80 Banjarmasin Telp/Fax: 0511) 4772826, website: www.labdasar.unlam.ac.id

**SERTIFIKAT HASIL UJI
Nomor: 164a/LB.LABDASAR/VIII/2022**

Nomor Referensi	: VIII-22-005	Tanggal Masuk	: 2 Agustus 2022
Nama	: Irham Taufiqurrahman	Tanggal Selesai	: 23 Agustus 2022
Institusi	: FKG ULM	Hasil Analisis	: Determinasi
No Invoice	: 180/TS-08/2022	Jenis Tumbuhan	: Ramania

HABITUS

Pohon, tinggi mencapai 25 m.

DAUN

Daun bundar telur memanjang sampai lanset atau jorong, permukaan daun mengkilat dan berujung runcing, tepi daun rata, ukuran daun antara 11- 45 cm (panjang) dan 4 – 13 cm (lebar).

BATANG

Silindris, warna coklat, batang beralur coklat terang, percabangan sering kali melengkung, menyiku atau mendatar.

AKAR

Tunggang

BUAH

Buah batu, buah membulat dengan diameter antara 2.5-5 cm, buah muda berwarna hijau, buah tua dan matang buah berwarna kuning hingga jingga, mengeluarkan cairan kental, rasa agak asam hingga manis; bijinya berwarna ungu, Biji berukuran diameter 2-5 cm.

BUNGA

Bunga muncul dari ketiak daun berbentuk malai, bunga tetramerus, kecil, cuping kelopak bundar telur melebar, daun mahkota lonjong sampai bundar telur terbalik dan berwarna kekuningan.

NAMA LOKAL

Ramania (Kalimantan Selatan), Asam kundang atau kundangan (Malaysia), gandaria (Jawa), jatake, gandaria (Sunda), remieu (Gayo), barania (Dayak ngaju), dandoriah (Minangkabau), wetes (Sulawesi Utara), Kalawasa, rapo-rapo kebo (Makasar), buwa melawe (Bugis).





KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA

Alamat: Jl. Jend. A. Yani Km. 35,8 Banjarbaru/Telp/Fax: (0511) 4772826, website: www.labdasar.unlam.org

SERTIFIKAT HASIL UJI
Nomor: 164a/LB.LABDASAR/VIII/2022

KLASIFIKASI

Kingdom : Plantae
Divisi : Magnoliophyta
kelas : Magnoliopsida
Ordo : Sapindales
Family : Anacardiaceae
Genus : *Bouea*
Species : *Bouea macrophylla* Griffith.



NB : Sampel tanaman ramania diambil di Pagutan

5.7 Kabupaten Batu Licin



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA

Alamat: Jl. Jend. A. Yani Km. 35,42 Banjarbaru Telp/Fax: (0511) 4772826, website: www.labdasar-unlam.org

SERTIFIKAT HASIL UJI
Nomor: 165a/LB.LABDASAR/VIII/2022

Nomor Referensi	: VIII-22-005	Tanggal Masuk	: 2 Agustus 2022
Nama	: Irham Taufiqurrahman	Tanggal Selesai	: 23 Agustus 2022
Institusi	: FKG ULM	Hasil Analisis	: Determinasi
No.Invoice	: 180/TS-08/2022	Jenis Tumbuhan	: Ramania

HABITUS

Pohon, tinggi mencapai 25 m.

DAUN

Daun bundar telur memanjang sampai lanset atau jorong, permukaan daun mengkilat dan berujung runcing, tepi daun rata, ukuran daun antara 11- 45 cm (panjang) dan 4 – 13 cm (lebar).

BATANG

Silindris, warna coklat, batang beralur coklat terang, percabangan sering kali melengkung, menyiku atau mendatar.

AKAR

Tunggang.

BUAH

Buah batu, buah membulat dengan diameter antara 2.5-5 cm, buah muda berwarna hijau, buah tua dan matang buah berwarna kuning hingga jingga, mengeluarkan cairan kental, rasa agak asam hingga manis; bijinya berwarna ungu, Biji berukuran diameter 2-5 cm.

BUNGA

Bunga muncul dari ketiak daun berbentuk malai; bunga tetramerus, kecil, cuping kelopak bundar telur melebar, daun mahkota lonjong sampai bundar telur terbalik dan berwarna kekuningan.

NAMA LOKAL

Ramania (Kalimantan Selatan), Asam kundang atau kundangan (Malaysia), gandaria (Jawa), jatake, gandaria (Sunda), remieu (Gayo), barania (Dayak ngaju), dandoriah (Minangkabau), wetes (Sulawesi Utara), Kalawasa, rapo-rapo kebo (Makasar), buwa melawe (Bugis).





KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA

Alamat: Jl. Jend. A. Yani Km. 35,8 Banjarbaru Telp./fax. (0511) 4772826, website: www.labdasar-unlam.org

SERTIFIKAT HASIL UJI
Nomor: 165a/LB.LABDASAR/VIII/2022

KLASIFIKASI

Kingdom	:	Plantae
Divisi	:	Magnoliophyta
kelas	:	Magnoliopsida
Ordo	:	Sapindales
Family	:	Anacardiaceae
Genus	:	<i>Bouea</i>
Species	:	<i>Bouea macrophylla</i> Griffith.

Banjarbaru, 23 Agustus 2022
Muhlis Puncak,

Fotok Wianto, S.Si., M.Si.
19780104 200312 1 004

NB : Sampel tanaman ramania diambil di Banuhicin

5.8 Kabupaten Amuntai



**KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA**

Alamat: Jl. Jend. A. Yani Km. 35, Banjarmasin/Telp/Fax: (0511) 4772826, website: www.lmbd.uin-sleman.org

**SERTIFIKAT HASIL UJI
Nomor: 152a/LB.LABDASAR/VIII/2022**

Nomor Referensi	: VII-22-005	Tanggal Masuk	: 14 Juli 2022
Nama	: Irham Taufiqurrahman	Tanggal Selesai	: 15 Agustus 2022
Institusi	: FKG ULM	Hasil Analisis	: Determinasi
No Invoice	: 171/TS-07/2022	Jenis Tumbuhan	: Ramania

HABITUS

Pohon, tinggi mencapai 25 m.

DAUN

Daun bundar telur memanjang sampai lanset atau jorong, permukaan daun mengkilat dan berujung runcing, tepi daun rata, ukuran daun antara 11- 45 cm (panjang) dan 4 – 13 cm (lebar).

BATANG

Silindris, warna coklat, batang beralur coklat terang, percabangan sering kali melengkung, menyiku atau mendatar.

AKAR

Tanggung

BUAH

Buah batu, buah membulat dengan diameter antara 2.5-5 cm, buah muda berwarna hijau, buah tua dan matang buah berwarna kuning hingga jingga, mengeluarkan cairan kental, rasa agak asam hingga manis; bijinya berwarna ungu, Biji berukuran diameter 2-5 cm.

BUNGA

Bunga muncul dari ketiak daun berbentuk malai; bunga tetramerus, kecil, cuping kelopak bundar telur melebar, daun mahkota lonjong sampai bundar telur terbalik dan berwarna kekuningan.

NAMA LOKAL

Ramania (Kalimantan Selatan), Asam kundang atau kundangan (Malaysia), gandaria (Jawa), jatake, gandaria (Sunda), remieu (Gayo), barania (Dayak ngaju), dandoriah (Minangkabau), wetes (Sulawesi Utara), Kalawasa, rapo-rapo kebo (Makasar), buwa melawe (Bugis).





KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA

Alamat: Jl. Jend. A. Yani Km. 35,83 Banjarmasin, Telp/Fax: (0511) 4772826, website: www.labdasar-unlam.org

SERTIFIKAT HASIL UJI
Nomor: 152a/LB.LABDASAR/VIII/2022

KLASIFIKASI

Kingdom	:	Plantae
Divisi	:	Magnoliophyta
kelas	:	Magnoliopsida
Ordo	:	Sapindales
Family	:	Anacardiaceae
Genus	:	<i>Bouea</i>
Species	:	<i>Bouea macrophylla</i> Griffith.

Banjarmasin, 16 Agustus 2022
Mangrove Puncak,

Dr. Pratik Wianto, S.Si., M.Si.
NIP. 19780504 200312 1 004

NB : Sampel tanaman ramania diambil di Amuntai

8. Sertifikat hasil uji determinasi daun Pegagan



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
UNIVERSITAS LAMBUNG MANGKURAT
LABORATORIUM FMIPA

Alamat: Jl. Jend. A. Yani Km. 35,8 Banjarbaru, Telp/Fax: (0511) 4772826, website: www.lmbdhuar-unlam.org

SERTIFIKAT HASIL UJI
Nomor: 061a/LB.LABDASAR/II/2023

Nomor Referensi	: I-23-042	Tanggal Masuk	: 20 Januari 2023
Nama	: Irham Taufiqurrahman	Tanggal Selesai	: 27 Januari 2023
Institusi	: FKG ULM	Hasil Analisis	: Determinasi
No.Invoice	: 042/TS-01/2023	Jenis Tumbuhan	: Pegagan

HABITUS

Terna atau herba menahun.

DAUN

Daun tunggal, bertangkai panjang, dan terdiri dari 2-10 helai daun, dalam roset. Helaian daun berbentuk ginjal, panjang tangkai 1-50 cm, pada pangkal berbentuk pelepah, tepi bergerigi atau beringgit dan agak berambut.

BATANG

Tidak berbatang, mempunyai rimpang pendek dan stolon-stolon yang merayap, panjang 10-80 cm.

AKAR

Serabut.

BUAH

Buah majemuk tak terbatas, kecil bergantung, berbentuk lonjong, pipih, panjang 2-2,5 mm, baunya wangi, dan rasanya pahit.

BUNGA

Bunga tersusun dalam karangan berupa payung, tunggal atau 3-5 bunga bersama-sama keluar dari ketiak daun, dan berwarna merah muda atau putih.

NAMA LOKAL

Pegago (Minangkabau); antanan gede, antanan rambat (Sunda); ganggagan, kerok batok, pantegowang, panegowang, rendeng, calingan rambat, pegagan, atau gagan-gagan (Jawa); taidah (Bali); balele (Sasak, Nusa Tenggara); kelai lere (Sawo, Nusa Tenggara); wisu-wisu, pegaga (Makasar); daun tungke-tungke, cipubalawo (Bugis); hisuhisu (Aselayar, Sulawesi); kos tekosan, gan gagan (Madura), sarowati, kori-kori (Halmahera), kolotidi menora (Ternate), dan dogakue, gogakue, atau sandanan (Irian).



9. Sertifikat hasil uji determinasi daun *Camelia sinensis*



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Alamat: Jl. Jend. A. Yani Km. 35,8 Banjarbaru, Telp./fax: (0511) 4772826, website: www.labdasar-stulam.org

SERTIFIKAT HASIL UJI
Nomor: 121a/LB.LABDASAR/III/2023

Nomor Referensi	: III-23-006	Tanggal Masuk	: 6 Maret 2023
Nama	: Irham Taufiqurrahman	Tanggal Selesai	: 27 Maret 2023
Institusi	: FKG ULM	Hasil Analisis	: Determinasi
No.Invoice	: 091/TS-03/2023	Jenis Tumbuhan	: Teh

HABITUS

Perdu atau pohon kecil.

DAUN

Daun tunggal; hijau muda dengan panjang 5 - 30 cm dan lebar sekitar 4 cm; ujung runcing, tepi rata, pangkal daun tumpul. Daun tua berwarna lebih gelap.

BATANG

Silindris, berkayu, warna coklat.

AKAR

Tunggang, warna coklat tua.

BUAH

Buahnya berbentuk pipih, bulat, dan terdapat satu biji dalam masing-masing buah dengan ukuran sebesar kacang.

BUNGA

Bunganya kuning-putih berdiameter 2,5-4 cm dengan 7 hingga 8 petal; diameter 2,5 - 4 cm dan biasanya berdiri sendiri atau saling berpasangan dua-dua.

NAMA LOKAL

Teh.



10. Sertifikat hasil uji kandungan tanah di delapan kabupaten



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FAKULTAS MATEMATIKA DAN ILMU PENGETAHUAN ALAM
LABORATORIUM FMIPA

Jl. Jend. Ahmad Yani Km. 35 800, Banjarbaru Telp/Fax : (0511)4772806

SERTIFIKAT HASIL UJI
No. 169/LK.LABDASAR/IX/2022

Nomor Referensi : VIII-22-006
Customer : Ihsan Taufiqperhman
Alamat Customer : Fakultas Kedokteran Gigi ULM
No.Telp/Fax/Email : ihsan.taufiqperhman@ulm.ac.id

Pembawa Sampel : M. Iqbal Hendarwan
Institusi Pembawa Sampel : Fakultas Kedokteran Gigi ULM
No.Telp /Fax/Email : 085389891213
Alamat : Fakultas Kedokteran Gigi ULM
Kemasan Sampel : Plastik
Jenis sampel : Tanah
No.Invoice : 181/TS -08/2022
Tanggal Penerimaan Sampel : 2 Agustus 2022
Tanggal Selesai Pengujian : 24 Agustus 2022
Hasil Analisis : Kimia

No.	Kode Sampel	Parameter	
		N-Total (%)	P total (% P ₂ O ₅)
1	Tanah ramania Banjarbaru	0,784	0,05549
2	Tanah ramania Rantau	0,728	0,03176
3	Tanah ramania Marabahan	0,448	0,03457
4	Tanah ramania Kaulangan	0,392	0,00323
5	Tanah ramania Belangan	0,336	0,05382
6	Tanah ramania Pagatan	0,504	0,00582
7	Tanah ramania Batu Licin	0,616	0,00676
8	Tanah ramania Amantai	0,672	0,0522

Catatan : Sampel sampel uji nomor referensi VIII-22-006 tidak dibuktikan oleh petugas LAB FMIPA ULM



Banjarbaru, 19 September 2022

Manajer Pusat

Dr. Totok Wanto, S.Si, M.Si
NIP.19780504.200312.1.004

11. Skrining Fitokimia



KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN
UNIVERSITAS LAMBUNG MANGKURAT
FAKULTAS KEDOKTERAN
DEPARTEMEN BOKIMIA DAN BIOMOLEKULER
Jalan A.Yani Km 36,0 Banjarbaru Telp. 0511-4780387

Nomor : 37/UNS.1.17.2.2/PP/2023

Banjarbaru, 23 Februari 2023

Lampiran :-

Perihal : Hasil pemeriksaan

Kepada Yth.

Di

Tempat

Dengan hormat,

Bersama ini kami sampaikan hasil pengujian fitokimia Maserasi Daun Ramania sebagai berikut :

Parameter	Kuantitatif	Keterangan
Alkaloid (%)	21,507 ± 0,591	Triplo
Saponin (%)	23,492 ± 0,331	Triplo
Fenolik (mg/ml)	150,689 ± 6,342	Triplo
Flavonoid (mg/ml)	72,333 ± 0,878	Triplo
Tannin (mg/mL GAE)	0,882 ± 0,049	Triplo
Steroid (mg/ml)	42,578 ± 0,170	Triplo
Triterpenoid	329,467 ± 5,033	Triplo

Demikian disampaikan, atas kerjasamanya diucapkan terima kasih.

Penanggung Jawab,

Dr. Eko Sahartono, Drs, M.Si
NIP 19680907 199303 1 004



12. Analisis Molekuler dan Aktivitas Biologis Senyawa Bioaktif dengan Gen pada Sampel Ramania

Sampel Rantau Kabupaten Tapin				
No.	Senyawa Aktif	Komposisi Elemen	Gen Target	Aktivitas Biologi
1	Dodecanoic acid, ethyl ester (CAS) Ethyl lauric	$C_{14}H_{28}O_2$	<i>Unknown</i>	Antioksidan, Anticancer (Roleira <i>et al.</i> , 2015)
2	Lauric acid	$CH_3(CH_2)_{10}COOH$	SMCR7L ZBTB39 GPR183 O3FAR1 FFAR1 GPR17 GPR119 TG	Antioksidan, Antiinflamasi, Antibakteria, Antifungal, Antiviral Anticancer Analgesik Antipiretik Imunomodulator (Al-Eraky <i>et al.</i> , 2016; Intahphuak <i>et al.</i> , 2010)
3	Ethanol 2-(dodecyloxy)- (CAS) DODECOX	$C_{14}H_{30}O_2$	<i>Unknown</i>	Antioksidan, Antibakteri (Sharma <i>et al.</i> , 2016)
4	DODECANOIC ACID	$CH_3(CH_2)_{10}COOH$	LY96 ACOT7 CYP4A11 PMCH APP MTRNR2L2 GPR68 CCK GCG FFAR1	Antioksidan, Antiinflamasi, Antibakteria, Antifungal, Antiviral Anticancer Analgesik Antipiretik Imunomodulator (Al-Eraky <i>et al.</i> , 2016; Intahphuak <i>et al.</i> , 2010)
5	Tetradecanoic acid (CAS) Myristic acid	$CH_3(CH_2)_{12}COOH$	CALM2 PVR ABL1 TLR4 LY96 PRKACA HNF4A GUCA1A TRAPPC3 GM2A	Antioksidan, Hepatoprotektif (Liu <i>et al.</i> , 2019)
6	Dodecanoic acid 1,2,3-propanetriyl ester	$C_{39}H_{74}O$	<i>Unknown</i>	Antioksidan, Antibakteria Antiviral (Diah <i>et al.</i> , 2022; Sharma <i>et al.</i> , 2018)
7	1-Dotriacontanol	$C_{32}H_{66}O$	<i>Unknown</i>	Antioksidan, antibakteria (Asong <i>et al.</i> , 2019)

Sampel Amuntai Kabupaten Hulu Sungai Utara				
No.	Senyawa Aktif	Komposisi Elemen	Gen Target	Aktivitas Biologi
1	Lauric acid	CH ₃ (CH ₂) ₁₀ COOH	SMCR7L ZBTB39 GPR183 O3FAR1 FFAR1 GPR17 GPR119 TG	Antioksidan, Antiinflamasi, Antibakteria, Antifungal, Antiviral Anticancer Analgesik Antipiretik Imunomodulator (Al- Eraky <i>et al.</i> , 2016; Intahphuak <i>et al.</i> , 2010)
2	Tetradecanoic acid (CAS) Myristic acid	CH ₃ (CH ₂) ₁₂ COOH	CALM2 PVR ABL1 TLR4 LY96 PRKACA HNF4A GUCA1A TRAPPC3 GM2A	Antioksidan, Hepatoprotektif (Liu <i>et al.</i> , 2019)
3	Dodecanoic acid 1,2,3- propanetriyl ester	C ₃₉ H ₇₄ O	<i>Unknown</i>	Antioksidan, Antibakteria Antiviral (Diah <i>et al.</i> , 2022; Sharma <i>et al.</i> , 2018)
4	Dodecanoic acid, ethyl ester (CAS) Ethyl lauric	C ₁₄ H ₂₈ O ₂	<i>Unknown</i>	Antioksidan, Anticancer (Roleira <i>et al.</i> , 2015)
5	DODECANOIC ACID	CH ₃ (CH ₂) ₁₀ COOH	LY96 ACOT7 CYP4A11 PMCH APP MTRNR2L2 GPR68 CCK GCG FFAR1	Antioksidan, Antiinflamasi, Antibakteria, Antifungal, Antiviral Anticancer Analgesik Antipiretik Imunomodulator (Al- Eraky <i>et al.</i> , 2016; Intahphuak <i>et al.</i> , 2010)
6	1-Uracil-5-ribofuranosyl 2- Chloroethanoate	C ₁₁ H ₁₃ ClN ₂ O ₇	Unknown	Unkown
7	(E.E.E,E)-2,6,10,14- Cyclopentadecatetraen-1	Unknown	Unknown	Unknown

Sampel Pagatan, Kabupaten Tanah Bumbu				
No.	Senyawa Aktif	Komposisi Elemen	Gen Target	Aktivitas Biologi
1	Lauric acid	$\text{CH}_3(\text{CH}_2)_{10}\text{COOH}$	SMCR7L ZBTB39 GPR183 O3FAR1 FFAR1 GPR17 GPR119 TG	Antioksidan, Antiinflamasi, Antibakteria, Antifungal, Antiviral, Anticancer, Analgesik, Antipiretik, Imunomodulator (Al-Eraky <i>et al.</i> , 2016; Intahphuak <i>et al.</i> , 2010)
2	Tetradecanoic acid ethyl ester (CAS) Ethyl	$\text{C}_{16}\text{H}_{32}\text{O}_2$	<i>Unknown</i>	Antibakteria, Antioksidan, antiinflamasi (Siswadi & Saragih, 2021)
3	Tetradecanoic acid (CAS) Myristic acid	$\text{CH}_3(\text{CH}_2)_{12}\text{COOH}$	CALM2 PVR ABL1 TLR4 LY96 PRKACA HNF4A GUCA1A TRAPPC3 GM2A	Antioksidan, Hepatoprotektif (Liu <i>et al.</i> , 2019)
4	Dodecanoic acid 1,2,3-propanetriyl ester	$\text{C}_{39}\text{H}_{74}\text{O}$	<i>Unknown</i>	Antioksidan, Antibakteria, Antiviral (Diah <i>et al.</i> , 2022; Sharma <i>et al.</i> , 2018)
5	Dodecanoic acid, ethyl ester (CAS) Ethyl lauric	$\text{C}_{14}\text{H}_{28}\text{O}_2$	<i>Unknown</i>	Antioksidan, Anticancer (Roleira <i>et al.</i> , 2015)
6	Pentadecanoic acid, 14-methyl, methyl ester	$\text{C}_{15}\text{H}_{30}\text{O}_2$	F2RL1 GPR68 CASR MTRNR2L2 LTB4R2 OCT MLN LPAR2 GCG TBXA2R	Antibakteria (Mohadjerani <i>et al.</i> , 2016)
7	Hexadecanoic acid (CAS) Palmitic acid	$\text{C}_{16}\text{H}_{32}\text{O}_2$	<i>Unknown</i>	Antibakteria, Antioksidan, antiinflamasi (Siswadi & Saragih, 2021)
8	2-Undecanol (CAS) sec-Undecyl alcohol	$\text{C}_{11}\text{H}_{24}\text{O}$	<i>Unknown</i>	Antioksidan, Antibakteria (Drioiche <i>et al.</i> , 2020)

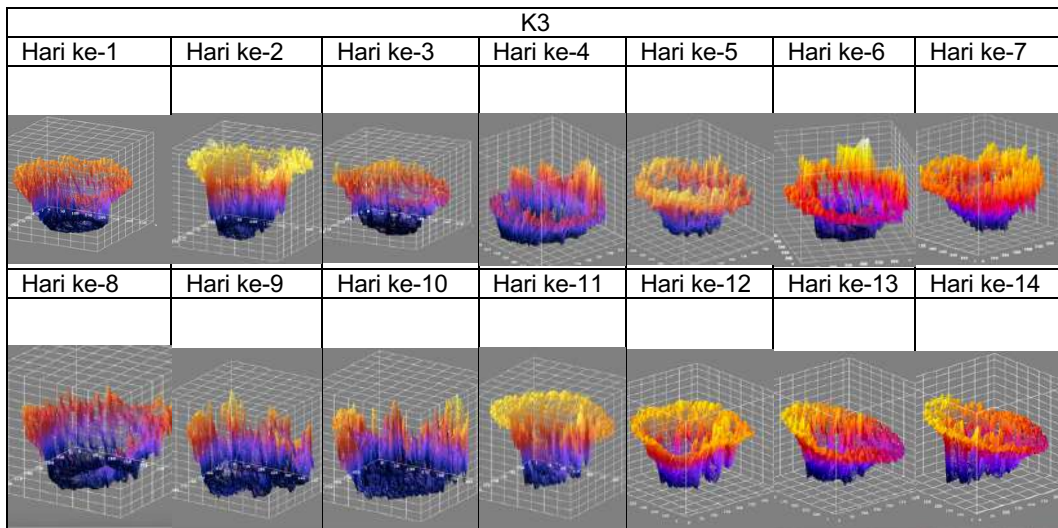
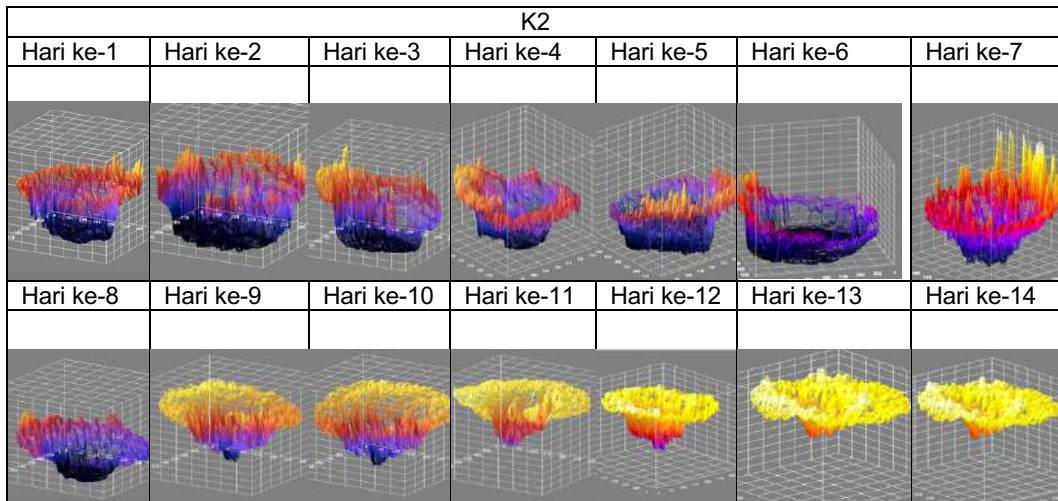
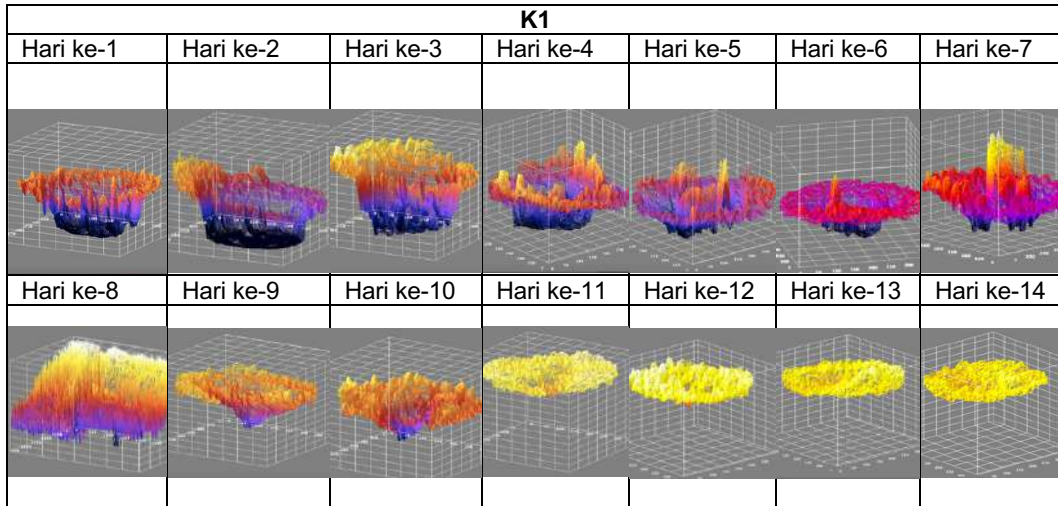
Sampel Kabupaten Balangan				
No.	Senyawa Aktif	Komposisi Elemen	Gen Target	Aktivitas Biologi
1	Lauric acid	$\text{CH}_3(\text{CH}_2)_{10}\text{COOH}$	SMCR7L ZBTB39 GPR183 O3FAR1 FFAR1 GPR17 GPR119 TG	Antioksidan, Antiinflamasi, Antibakteria, Antifungal, Antiviral, Anticancer, Analgesik, Antipiretik Imunomodulator (Al-Eraky <i>et al.</i> , 2016; Intahphuak <i>et al.</i> , 2010)
2	Dodecanoic acid 1,2,3-propanetriyl ester	$\text{C}_{39}\text{H}_{74}\text{O}$	<i>Unknown</i>	Antioksidan, Antibakteria Antiviral (Diah <i>et al.</i> , 2022; Sharma <i>et al.</i> , 2018)
3	Tetradecanoic acid (CAS) Myristic acid	$\text{CH}_3(\text{CH}_2)_{12}\text{COOH}$	CALM2 PVR ABL1 TLR4 LY96 PRKACA HNF4A GUCA1A TRAPPC3 GM2A	Antioksidan, Hepatoprotektif (Liu <i>et al.</i> , 2019)
4	Hexadeconic acid (CAS) Palmitic acid	$\text{C}_{16}\text{H}_{32}\text{O}_2$	<i>Unknown</i>	Antibakteria, Antioksidan, antiinflamasi (Siswadi & Saragih, 2021)
5	Propane, 1-chloro-2-nitro-(CAS) 1-chloro	$\text{C}_3\text{H}_6\text{ClNO}_2$	<i>Unknown</i>	<i>Unknown</i>

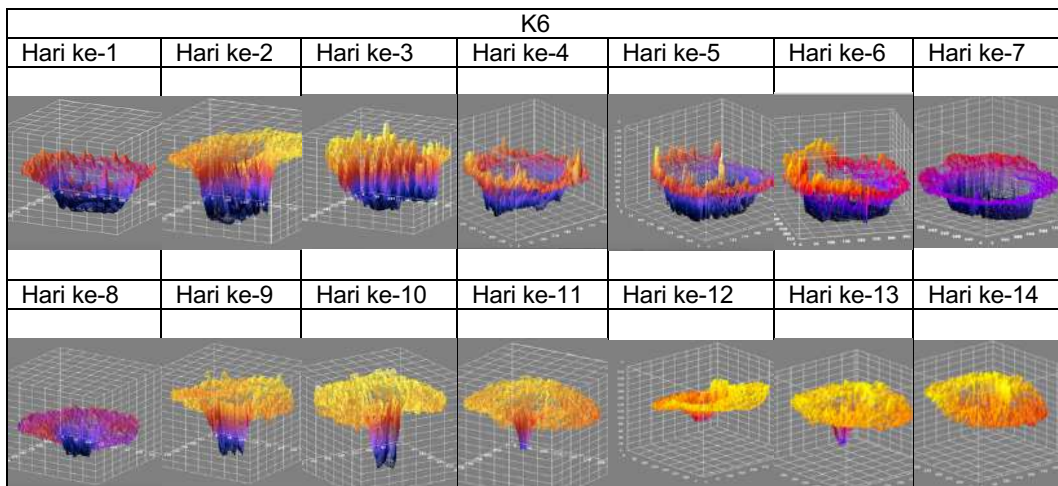
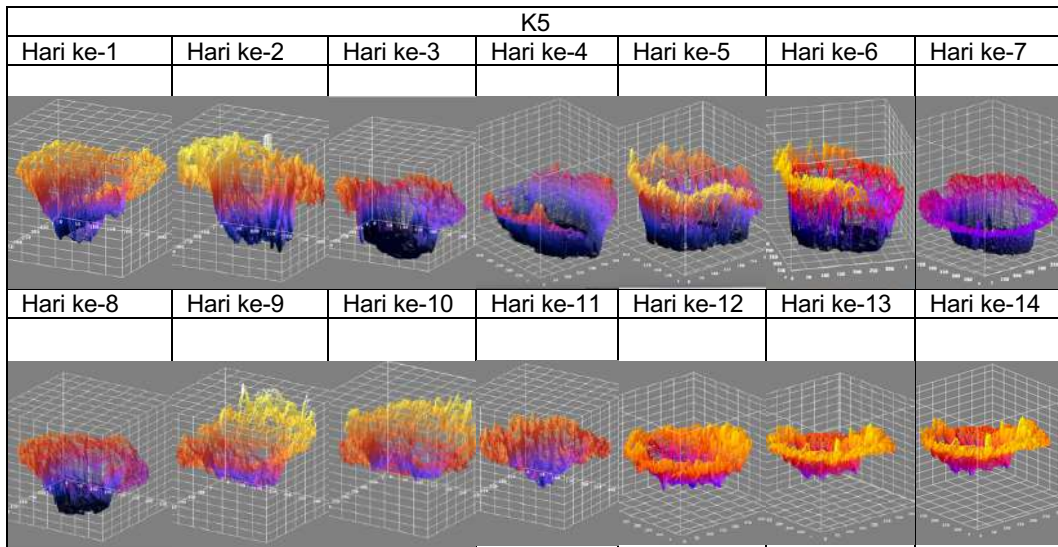
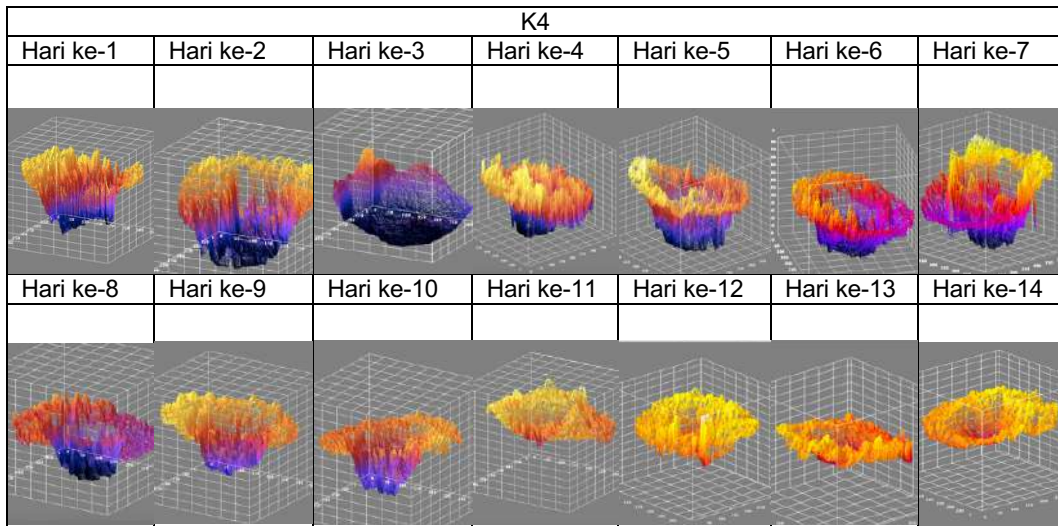
Sampel Marabahan Kabupaten Barito Kuala				
No.	Senyawa Aktif	Komposisi Elemen	Gen Target	Aktivitas Biologi
1	Lauric acid	$\text{CH}_3(\text{CH}_2)_{10}\text{COOH}$	SMCR7L ZBTB39 GPR183 O3FAR1 FFAR1 GPR17 GPR119 TG	Antioksidan, Antiinflamasi, Antibakteria, Antifungal, Antiviral, Anticancer, Analgesik, Antipiretik Imunomodulator (Al-Eraky <i>et al.</i> , 2016; Intahphuak <i>et al.</i> , 2010)
2	Dodecanoic acid 1,2,3-propanetriyl ester	$\text{C}_{39}\text{H}_{74}\text{O}$	<i>Unknown</i>	Antioksidan, Antibakteria Antiviral (Diah <i>et al.</i> , 2022; Sharma <i>et al.</i> , 2018)
3	Tetradecanoic acid (CAS) Myristic acid	$\text{CH}_3(\text{CH}_2)_{12}\text{COOH}$	CALM2 PVR ABL1 TLR4 LY96 PRKACA HNF4A GUCA1A TRAPPC3 GM2A	Antioksidan, Hepatoprotektif (Liu <i>et al.</i> , 2019)
5	Hexadeconic acid (CAS) Palmitic acid	$\text{C}_{16}\text{H}_{32}\text{O}_2$	<i>Unknown</i>	Antibakteria, Antioksidan, antiinflamasi (Siswadi & Saragih, 2021)

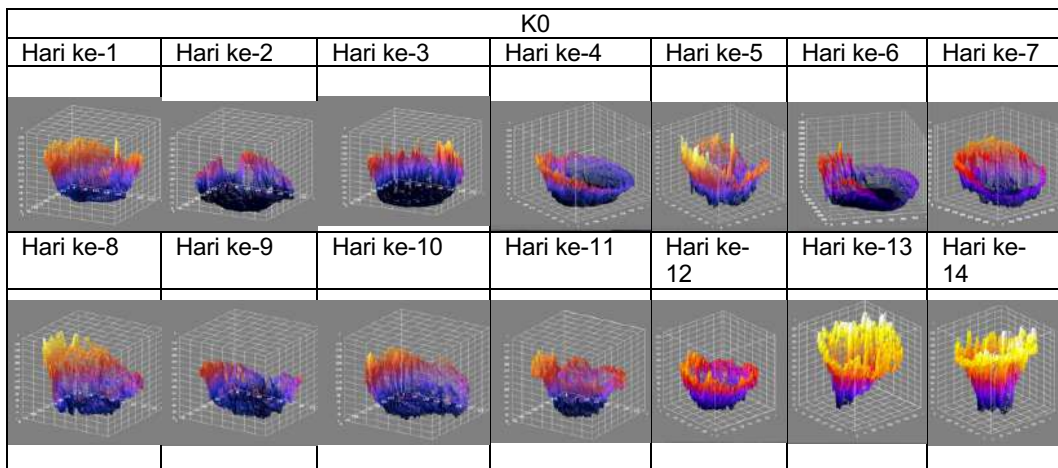
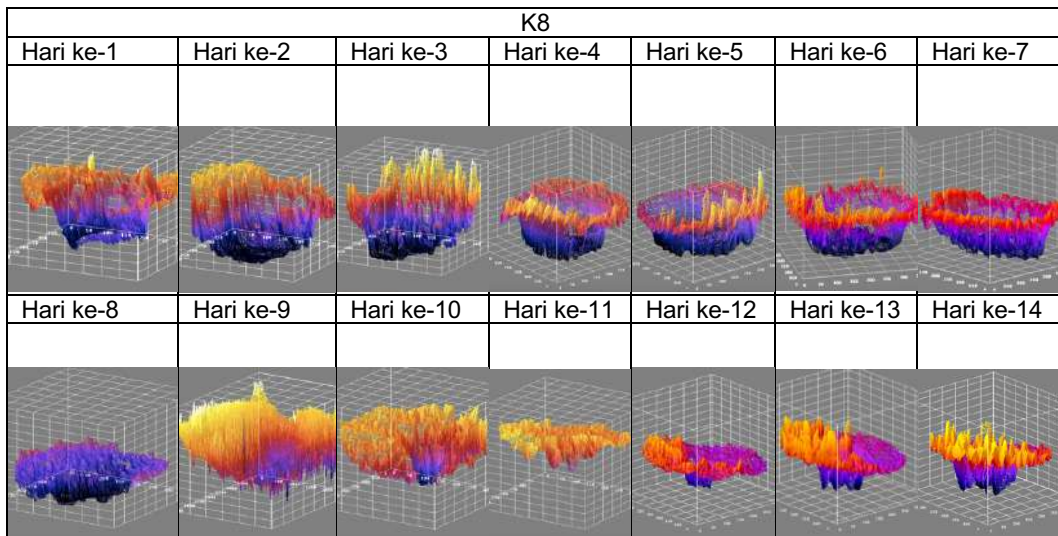
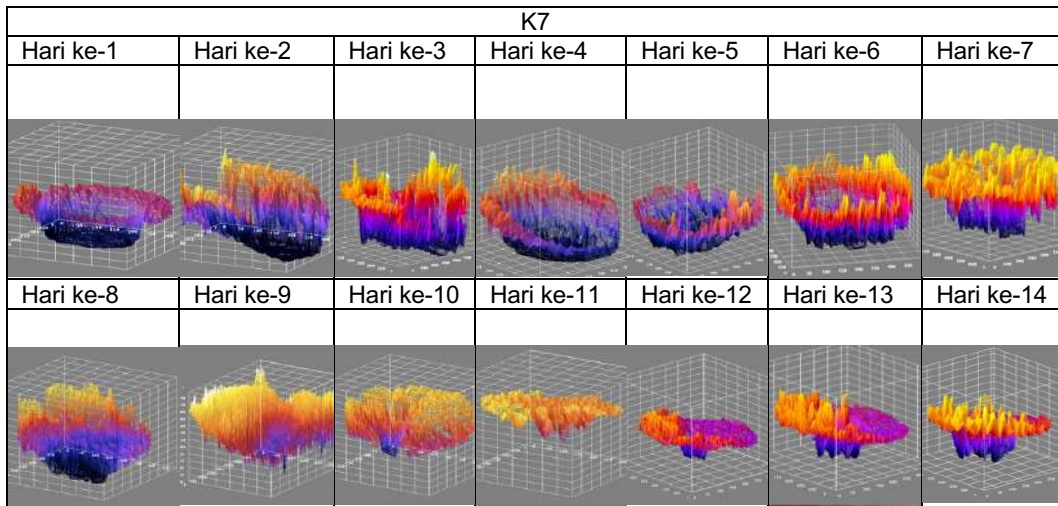
Sampel Kandangan Kabupaten Hulu Sungai Selatan				
No.	Senyawa Aktif	Komposisi Elemen	Gen Target	Aktivitas Biologi
1	Lauric acid	CH ₃ (CH ₂) ₁₀ COOH	SMCR7L ZBTB39 GPR183 O3FAR1 FFAR1 GPR17 GPR119 TG	Antioksidan, Antiinflamasi, Antibakteria, Antifungal, Antiviral, Anticancer, Analgesik, Antipiretik Imunomodulator (Al-Eraky <i>et al.</i> , 2016; Intahphuak <i>et al.</i> , 2010)
2	Dodecanoic acid 1,2,3-propanetriyl ester	C ₃₉ H ₇₄ O	<i>Unknown</i>	Antioksidan, Antibakteria Antiviral (Diah <i>et al.</i> , 2022; Sharma <i>et al.</i> , 2018)
3	Tetradecanoic acid (CAS) Myristic acid	CH ₃ (CH ₂) ₁₂ COOH	CALM2 PVR ABL1 TLR4 LY96 PRKACA HNF4A GUCA1A TRAPPC3 GM2A	Antioksidan, Hepatoprotektif (Liu <i>et al.</i> , 2019)
4	Hexadecanoic acid (CAS) Palmitic acid	C ₁₆ H ₃₂ O ₂	<i>Unknown</i>	Antibakteria, Antioksidan, antiinflamasi (Siswadi & Saragih, 2021)
5	Propane, 1-chloro-2-nitro-(CAS) 1-chloro	C ₃ H ₆ ClNO ₂	<i>Unknown</i>	Unknown

Sampel Batulicin Kabupaten Tanah Bumbu				
No.	Senyawa Aktif	Komposisi Elemen	Gen Target	Aktivitas Biologi
1	Lauric acid	CH ₃ (CH ₂) ₁₀ COOH	SMCR7L ZBTB39 GPR183 O3FAR1 FFAR1 GPR17 GPR119 TG	Antioksidan, Antiinflamasi, Antibakteria, Antifungal, Antiviral, Anticancer, Analgesik, Antipiretik Imunomodulator (Al-Eraky <i>et al.</i> , 2016; Intahphuak <i>et al.</i> , 2010)
2	Dodecanoic acid 1,2,3-propanetriyl ester	C ₃₉ H ₇₄ O	<i>Unknown</i>	Antioksidan, Antibakteria Antiviral (Diah <i>et al.</i> , 2022; Sharma <i>et al.</i> , 2018)
3	Tetradecanoic acid (CAS) Myristic acid	CH ₃ (CH ₂) ₁₂ COOH	CALM2 PVR ABL1 TLR4 LY96 PRKACA HNF4A GUCA1A TRAPPC3 GM2A	Antioksidan, Hepatoprotektif (Liu <i>et al.</i> , 2019)

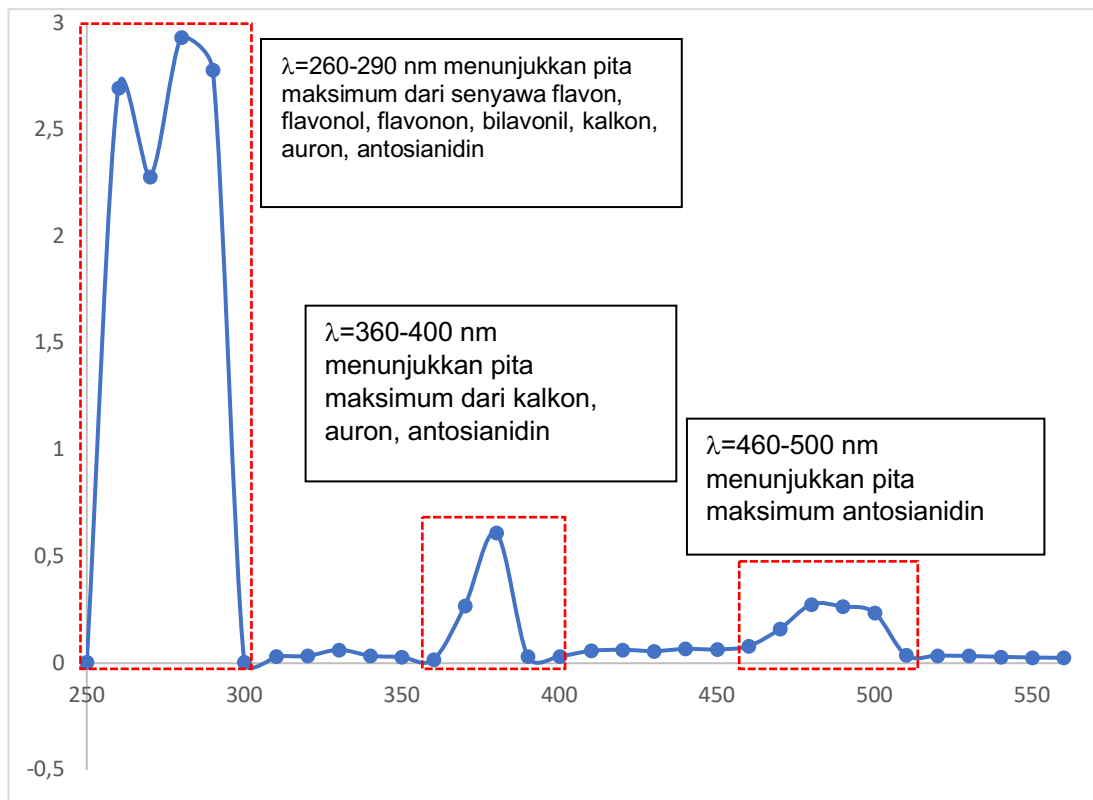
13. Tabel Indeks Eritema







14. Uji Spectroscopy



15. Hasil Analisis Data Indeks Eritema

15.1 Uji Normalitas Indeks Eritema

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for Erythema_Index	.205	630	.000	.788	630	.000

a. Lilliefors Significance Correction

15.2 Uji Homogenitas Indeks Eritema

Levene's Test of Equality of Error Variances^{a,b}

		Levene Statistic	df1	df2	Sig.
Erythema Index	Based on Mean	8.496	125	504	.000
	Based on Median	2.881	125	504	.000
	Based on Median and with adjusted df	2.881	125	43.485	.000
	Based on trimmed mean	7.893	125	504	.000

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Dependent variable: Erythema Index

b. Design: Intercept + Kelompok + Hari + Kelompok * Hari

15.3 (*Mean ± SD*) Indeks Eritema

Kelompok	(<i>Mean ± SD</i>) Indeks Eritema
K1	1.119246 ± 0.078226
K2	1.139189 ± 0.071482
K3	1.152777 ± 0.078316
K4	1.165033 ± 0.083052
K5	1.173381 ± 0.075079
K6	1.195829 ± 0.092462
K7	1.224163 ± 0.110000
K8	1.267527 ± 0.100463
K0	1.347375 ± 0.147986

Hari	(<i>Mean ± SD</i>) Indeks Eritema
Hari 1	1.329778 ± 0.116853
Hari 2	1.266416 ± 0.075512
Hari 3	1.242089 ± 0.083034
Hari 4	1.268857 ± 0.127558
Hari 5	1.272436 ± 0.112527
Hari 6	1.252605 ± 0.090788
Hari 7	1.199873 ± 0.036153
Hari 8	1.224939 ± 0.077008
Hari 9	1.154296 ± 0.138194
Hari 10	1.149108 ± 0.139910
Hari 11	1.091694 ± 0.035430
Hari 12	1.102832 ± 0.050271
Hari 13	1.110349 ± 0.031005
Hari 14	1.110649 ± 0.030744

15.4 Uji Statistik Friedman

Test Statistics^a

N	45
Chi-Square	561.536
df	22
Asymp. Sig.	.000

a. Friedman Test

15.5 Uji Lanjutan Mann-Whitney Indeks Eritema

Test Statistics K1 & K2^a

	Indeks_Eritema
Mann-Whitney U	1837.000
Wilcoxon W	4322.000
Z	-2.555
Asymp. Sig. (2-tailed)	.011

a. Grouping Variable: Kelompok

Test Statistics K1 & K3^a

	Indeks_Eritema
Mann-Whitney U	1680.000
Wilcoxon W	4165.000
Z	-3.209
Asymp. Sig. (2-tailed)	.001

a. Grouping Variable: Kelompok

Test Statistics K1 & K4^a

	Indeks_Eritema
Mann-Whitney U	1563.000
Wilcoxon W	4048.000
Z	-3.697
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Kelompok

Test Statistics K1 & K5^a

	Indeks_Eritema
Mann-Whitney U	1450.000
Wilcoxon W	3935.000
Z	-4.168
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Kelompok

Test Statistics K1 & K6^a

	Indeks_Eritema
Mann-Whitney U	1366.000
Wilcoxon W	3851.000
Z	-4.518
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Kelompok

Test Statistics K1 & K7^a

	Indeks_Eritema
Mann-Whitney U	1116.000
Wilcoxon W	3601.000
Z	-5.560
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Kelompok

Test Statistics K1 & K8^a

	Indeks_Eritema
Mann-Whitney U	694.000
Wilcoxon W	3179.000
Z	-7.318
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Kelompok

Test Statistics K1 & K0^a

	Indeks_Eritema
Mann-Whitney U	413.000
Wilcoxon W	2898.000
Z	-8.489
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Kelompok

Test Statistics K2 & K3^a

	Indeks_Erite ma
Mann-Whitney U	2074.000
Wilcoxon W	4559.000
Z	-1.567
Asymp. Sig. (2-tailed)	.117

a. Grouping Variable: Kelompok

Test Statistics K2 & K4^a

	Indeks_Erite ma
Mann-Whitney U	1769.500
Wilcoxon W	4254.500
Z	-2.836
Asymp. Sig. (2-tailed)	.005

a. Grouping Variable: Kelompok

Test Statistics K2 & K5^a

	Indeks_Erite ma
Mann-Whitney U	1588.000
Wilcoxon W	4073.000
Z	-3.592
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Kelompok

Test Statistics K2 & K6^a

	Indeks_Erite ma
Mann-Whitney U	1481.000
Wilcoxon W	3966.000
Z	-4.038
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Kelompok

Test Statistics K2 & K7^a

	Indeks_Erite ma
Mann-Whitney U	1280.000
Wilcoxon W	3765.000
Z	-4.876
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Kelompok

Test Statistics K2 & K8^a

	Indeks_Erite ma
Mann-Whitney U	844.000
Wilcoxon W	3329.000
Z	-6.693
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Kelompok

Test Statistics K2 & K0^a

	Indeks_Erite ma
Mann-Whitney U	512.000
Wilcoxon W	2997.000
Z	-8.077
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Kelompok

Test Statistics K3 & K4^a

	Indeks_Erite ma
Mann-Whitney U	2046.000
Wilcoxon W	4531.000
Z	-1.684
Asymp. Sig. (2-tailed)	.092

a. Grouping Variable: Kelompok

Test Statistics K3 & K5^a

	Indeks_Erite ma
Mann-Whitney U	1816.000
Wilcoxon W	4301.000
Z	-2.642
Asymp. Sig. (2-tailed)	.008

a. Grouping Variable: Kelompok

Test Statistics K3 & K6^a

	Indeks_Erite ma
Mann-Whitney U	1606.000
Wilcoxon W	4091.000
Z	-3.517
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Kelompok

Test Statistics K3 & K7^a

	Indeks_Erite ma
Mann-Whitney U	1404.000
Wilcoxon W	3889.000
Z	-4.359
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Kelompok

Test Statistics K3 & K8^a

	Indeks_Erite ma
Mann-Whitney U	948.000
Wilcoxon W	3433.000
Z	-6.260
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Kelompok

Test Statistics K3 & K0^a

	Indeks_Erite ma
Mann-Whitney U	620.000
Wilcoxon W	3105.000
Z	-7.627
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Kelompok

Test Statistics K4 & K5^a

	Indeks_Erite ma
Mann-Whitney U	2161.000
Wilcoxon W	4646.000
Z	-1.204
Asymp. Sig. (2-tailed)	.228

a. Grouping Variable: Kelompok

Test Statistics K4 & K6^a

	Indeks_Erite ma
Mann-Whitney U	1744.000
Wilcoxon W	4229.000
Z	-2.942
Asymp. Sig. (2-tailed)	.003

a. Grouping Variable: Kelompok

Test Statistics K4 & K7^a

	Indeks_Erite ma
Mann-Whitney U	1453.000
Wilcoxon W	3938.000
Z	-4.155
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Kelompok

Test Statistics^a

	Indeks_Erite ma
Mann-Whitney U	1011.000
Wilcoxon W	3496.000
Z	-5.997
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Kelompok

Test Statistics K5 & K6^a

	Indeks_Erite ma
Mann-Whitney U	1937.000
Wilcoxon W	4422.000
Z	-2.138
Asymp. Sig. (2-tailed)	.033

a. Grouping Variable: Kelompok

Test Statistics K5 & K8^a

	Indeks_Erite ma
Mann-Whitney U	1058.000
Wilcoxon W	3543.000
Z	-5.801
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Kelompok

Test Statistics K6 & K7^a

	Indeks_Erite ma
Mann-Whitney U	1993.000
Wilcoxon W	4478.000
Z	-1.905
Asymp. Sig. (2-tailed)	.057

a. Grouping Variable: Kelompok

Test Statistics K4 & K0^a

	Indeks_Erite ma
Mann-Whitney U	771.000
Wilcoxon W	3256.000
Z	-6.997
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Kelompok

Test Statistics K5 & K7^a

	Indeks_Erite ma
Mann-Whitney U	1618.000
Wilcoxon W	4103.000
Z	-3.467
Asymp. Sig. (2-tailed)	.001

a. Grouping Variable: Kelompok

Test Statistics K5 & K0^a

	Indeks_Erite ma
Mann-Whitney U	824.000
Wilcoxon W	3309.000
Z	-6.776
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Kelompok

Test Statistics K6 & K8^a

	Indeks_Erite ma
Mann-Whitney U	1331.000
Wilcoxon W	3816.000
Z	-4.664
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Kelompok

Test Statistics K6 & K0^a

	Indeks_Erite ma
Mann-Whitney U	954.000
Wilcoxon W	3439.000
Z	-6.235
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Kelompok

Test Statistics K7 & K8^a

	Indeks_Erite ma
Mann-Whitney U	1726.000
Wilcoxon W	4211.000
Z	-3.017
Asymp. Sig. (2-tailed)	.003

a. Grouping Variable: Kelompok

Test Statistics K7 & K0^a

	Indeks_Erite ma
Mann-Whitney U	1182.000
Wilcoxon W	3667.000
Z	-5.284
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Kelompok

Test Statistics K8 & K0^a

	Indeks_Erite ma
Mann-Whitney U	1596.000
Wilcoxon W	4081.000
Z	-3.559
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Kelompok

Keterangan:

- K₁ : Kelompok perlakuan dengan teh ramania, dengan gel ekstrak ramania 15 %
- K₂ : Kelompok perlakuan dengan teh ramania, dengan gel ekstrak pegagan 15 %
- K₃ : Kelompok perlakuan dengan teh *Camellia sinensis*, dengan gel ekstrak ramania 15 %
- K₄ : Kelompok perlakuan dengan teh *Camellia sinensis*, dengan gel ekstrak pegagan 15 %
- K₅ : Kelompok perlakuan dengan teh ramania, tanpa gel ekstrak ramania 15 % dan tanpa gel ekstrak pegagan 15 %
- K₆ : Kelompok perlakuan dengan teh *Camellia sinensis*, tanpa gel ekstrak ramania 15 % dan tanpa gel ekstrak pegagan 15 %
- K₇ : Kelompok perlakuan tanpa teh *Camellia sinensis* dan tanpa teh ramania dengan gel ekstrak ramania 15 %
- K₈ : Kelompok perlakuan tanpa teh *Camellia sinensis* dan tanpa teh ramania, dengan gel ekstrak pegagan 15 %
- K₀ : Kelompok kontrol, tanpa teh ramania, tanpa teh *Camellia sinensis*, tanpa gel ekstrak ramania 15 % dan tanpa gel ekstrak pegagan 15 %

16. Hasil Uji Aktivitas Enzim SOD

16.1 Uji Normalitas Aktivitas Enzim SOD

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for SOD	.129	180	.000	.890	180	.000

a. Lilliefors Significance Correction

16.2 Uji Homogenitas Aktivitas Enzim SOD

Levene's Test of Equality of Error Variances^{a,b}

		Levene Statistic	df1	df2	Sig.
SOD	Based on Mean	4.084	35	144	.000
	Based on Median	3.690	35	144	.000
	Based on Median and with adjusted df	3.690	35	30.608	.000
	Based on trimmed mean	4.088	35	144	.000

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Dependent variable: SOD

b. Design: Intercept + Waktu + Kelompok + Waktu * Kelompok

16.3 (*Mean ± SD*) Aktivitas Enzim SOD

Kel	<i>(Mean ± SD)</i> Aktivitas SOD				<i>p</i>
	0 jam	12 jam	24 jam	48 jam	
K1	0.022 ± 0.0016	0.018 ± 0.0022	0.034 ± 0.0016	0.0078 ± 0.0013	0,000
K2	0.009 ± 0.0016	0.026 ± 0.0016	0.005 ± 0.0012	0.0178 ± 0.0024	
K3	0.004 ± 0.0017	0.001 ± 0.00014	0.004 ± 0.0015	0.005 ± 0.0015	
K4	0.008 ± 0.0015	0.001 ± 0,0002	0.054 ± 0.0026	0.010 ± 0.0015	
K5	0.012 ± 0.0015	0.020 ± 0.0015	0.0078 ± 0.0013	0.005 ± 0.0018	
K6	0.020 ± 0.007	0.010 ± 0.0016	0.004 ± 0.0017	0.020 ± 0.008	
K7	0.020 ± 0.0032	0.009 ± 0.0015	0.043 ± 0.003	0.011 ± 0.0013	
K8	0.005 ± 0.0016	0.019 ± 0.0016	0.020 ± 0.0029	0.005 ± 0.002	
K0	0.024 ± 0.004	0.009 ± 0.0016	0.016 ± 0.0033	0.012 ± 0.0015	

16.4 Uji Statistik (Friedman) Aktivitas Enzim SOD

Test Statistics^a

N	20
Chi-Square	48.961
df	8
Asymp. Sig.	.000

a. Friedman Test

16.5 Uji Lanjutan Mann-Whitney Aktivitas Enzim SOD

Test Statistics K1 & K2^a

	SOD_Enzym
Mann-Whitney U	132.000
Wilcoxon W	342.000
Z	-1.841
Asymp. Sig. (2-tailed)	.066
Exact Sig. [2*(1-tailed Sig.)]	.068 ^b

a. Grouping Variable: Intervensi

b. Not corrected for ties.

Test Statistics K1 & K3^a

	SOD_Enzym
Mann-Whitney U	3.000
Wilcoxon W	213.000
Z	-5.334
Asymp. Sig. (2-tailed)	.000
Exact Sig. [2*(1-tailed Sig.)]	.000 ^b

a. Grouping Variable: Intervensi

b. Not corrected for ties.

Test Statistics K1 & K4^a

	SOD_Enzym
Mann-Whitney U	135.500
Wilcoxon W	345.500
Z	-1.746
Asymp. Sig. (2-tailed)	.081
Exact Sig. [2*(1-tailed Sig.)]	.081 ^b

a. Grouping Variable: Intervensi

b. Not corrected for ties.

Test Statistics K1 & K5^a

	SOD_Enzym
Mann-Whitney U	87.500
Wilcoxon W	297.500
Z	-3.047
Asymp. Sig. (2-tailed)	.002
Exact Sig. [2*(1-tailed Sig.)]	.002 ^b

a. Grouping Variable: Intervensi

b. Not corrected for ties.

Test Statistics K1 & K6^a

	SOD_Enzym
Mann-Whitney U	122.000
Wilcoxon W	332.000
Z	-2.112
Asymp. Sig. (2-tailed)	.035
Exact Sig. [2*(1-tailed Sig.)]	.035 ^b

a. Grouping Variable: Intervensi

b. Not corrected for ties.

Test Statistics K1 & K7^a

	SOD_Enzym
Mann-Whitney U	194.000
Wilcoxon W	404.000
Z	-.162
Asymp. Sig. (2-tailed)	.871
Exact Sig. [2*(1-tailed Sig.)]	.883 ^b

a. Grouping Variable: Intervensi

b. Not corrected for ties.

Test Statistics K1 & K8^a

	SOD_Enzym
Mann-Whitney U	96.500
Wilcoxon W	306.500
Z	-2.804
Asymp. Sig. (2-tailed)	.005
Exact Sig. [2*(1-tailed Sig.)]	.004 ^b

a. Grouping Variable: Intervensi

b. Not corrected for ties.

Test Statistics K1 & K0^a

	SOD_Enzym
Mann-Whitney U	140.000
Wilcoxon W	350.000
Z	-1.625
Asymp. Sig. (2-tailed)	.104
Exact Sig. [2*(1-tailed Sig.)]	.108 ^b

a. Grouping Variable: Intervensi

b. Not corrected for ties.

Test Statistics K2 & K3^a

	SOD_Enzym
Mann-Whitney U	28.500
Wilcoxon W	238.500
Z	-4.647
Asymp. Sig. (2-tailed)	.000
Exact Sig. [2*(1-tailed Sig.)]	.000 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K2 & K5^a

	SOD_Enzym
Mann-Whitney U	161.000
Wilcoxon W	371.000
Z	-1.057
Asymp. Sig. (2-tailed)	.291
Exact Sig. [2*(1-tailed Sig.)]	.301 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K2 & K7^a

	SOD_Enzym
Mann-Whitney U	148.000
Wilcoxon W	358.000
Z	-1.408
Asymp. Sig. (2-tailed)	.159
Exact Sig. [2*(1-tailed Sig.)]	.165 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K2 & K0^a

	SOD_Enzym
Mann-Whitney U	175.000
Wilcoxon W	385.000
Z	-.677
Asymp. Sig. (2-tailed)	.498
Exact Sig. [2*(1-tailed Sig.)]	.512 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K2 & K4^a

	SOD_Enzym
Mann-Whitney U	174.000
Wilcoxon W	384.000
Z	-.704
Asymp. Sig. (2-tailed)	.482
Exact Sig. [2*(1-tailed Sig.)]	.495 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K2 & K6^a

	SOD_Enzym
Mann-Whitney U	189.000
Wilcoxon W	399.000
Z	-.298
Asymp. Sig. (2-tailed)	.766
Exact Sig. [2*(1-tailed Sig.)]	.779 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K2 & K8^a

	SOD_Enzym
Mann-Whitney U	161.000
Wilcoxon W	371.000
Z	-1.056
Asymp. Sig. (2-tailed)	.291
Exact Sig. [2*(1-tailed Sig.)]	.301 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K3 & K4^a

	SOD_Enzym
Mann-Whitney U	90.500
Wilcoxon W	300.500
Z	-2.965
Asymp. Sig. (2-tailed)	.003
Exact Sig. [2*(1-tailed Sig.)]	.002 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K3 & K5^a

	SOD_Enzym
Mann-Whitney U	31.000
Wilcoxon W	241.000
Z	-4.583
Asymp. Sig. (2-tailed)	.000
Exact Sig. [2*(1-tailed Sig.)]	.000 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K3 & K7^a

	SOD_Enzym
Mann-Whitney U	.500
Wilcoxon W	210.500
Z	-5.401
Asymp. Sig. (2-tailed)	.000
Exact Sig. [2*(1-tailed Sig.)]	.000 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K3 & K0^a

	SOD_Enzym
Mann-Whitney U	.500
Wilcoxon W	210.500
Z	-5.402
Asymp. Sig. (2-tailed)	.000
Exact Sig. [2*(1-tailed Sig.)]	.000 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K4 & K6^a

	SOD_Enzym
Mann-Whitney U	171.500
Wilcoxon W	381.500
Z	-.772
Asymp. Sig. (2-tailed)	.440
Exact Sig. [2*(1-tailed Sig.)]	.445 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K3 & K6^a

	SOD_Enzym
Mann-Whitney U	41.500
Wilcoxon W	251.500
Z	-4.296
Asymp. Sig. (2-tailed)	.000
Exact Sig. [2*(1-tailed Sig.)]	.000 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K3 & K8^a

	SOD_Enzym
Mann-Whitney U	58.000
Wilcoxon W	268.000
Z	-3.855
Asymp. Sig. (2-tailed)	.000
Exact Sig. [2*(1-tailed Sig.)]	.000 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K4 & K5^a

	SOD_Enzym
Mann-Whitney U	189.000
Wilcoxon W	399.000
Z	-.298
Asymp. Sig. (2-tailed)	.766
Exact Sig. [2*(1-tailed Sig.)]	.779 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K4 & K7^a

	SOD_Enzym
Mann-Whitney U	133.500
Wilcoxon W	343.500
Z	-1.800
Asymp. Sig. (2-tailed)	.072
Exact Sig. [2*(1-tailed Sig.)]	.072 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K4 & K8^a

	SOD_Enzym
Mann-Whitney U	196.000
Wilcoxon W	406.000
Z	-.108
Asymp. Sig. (2-tailed)	.914
Exact Sig. [2*(1-tailed Sig.)]	.925 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K5 & K6^a

	SOD_Enzym
Mann-Whitney U	174.500
Wilcoxon W	384.500
Z	-.691
Asymp. Sig. (2-tailed)	.490
Exact Sig. [2*(1-tailed Sig.)]	.495 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K5 & K8^a

	SOD_Enzym
Mann-Whitney U	198.500
Wilcoxon W	408.500
Z	-.041
Asymp. Sig. (2-tailed)	.968
Exact Sig. [2*(1-tailed Sig.)]	.968 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K6 & K7^a

	SOD_Enzym
Mann-Whitney U	140.000
Wilcoxon W	350.000
Z	-1.626
Asymp. Sig. (2-tailed)	.104
Exact Sig. [2*(1-tailed Sig.)]	.108 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K4 & K0^a

	SOD_Enzym
Mann-Whitney U	130.000
Wilcoxon W	340.000
Z	-1.895
Asymp. Sig. (2-tailed)	.058
Exact Sig. [2*(1-tailed Sig.)]	.060 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K5 & K7^a

	SOD_Enzym
Mann-Whitney U	108.000
Wilcoxon W	318.000
Z	-2.491
Asymp. Sig. (2-tailed)	.013
Exact Sig. [2*(1-tailed Sig.)]	.012 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K5 & K0^a

	SOD_Enzym
Mann-Whitney U	122.500
Wilcoxon W	332.500
Z	-2.100
Asymp. Sig. (2-tailed)	.036
Exact Sig. [2*(1-tailed Sig.)]	.035 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K6 & K8^a

	SOD_Enzym
Mann-Whitney U	180.000
Wilcoxon W	390.000
Z	-.542
Asymp. Sig. (2-tailed)	.588
Exact Sig. [2*(1-tailed Sig.)]	.602 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K6 & K0^a

SOD_Enzym	
Mann-Whitney U	160.000
Wilcoxon W	370.000
Z	-1.085
Asymp. Sig. (2-tailed)	.278
Exact Sig. [2*(1-tailed Sig.)]	.289 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K7 & K0^a

SOD_Enzym	
Mann-Whitney U	179.000
Wilcoxon W	389.000
Z	-.569
Asymp. Sig. (2-tailed)	.569
Exact Sig. [2*(1-tailed Sig.)]	.583 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K7 & K8^a

SOD_Enzym	
Mann-Whitney U	121.000
Wilcoxon W	331.000
Z	-2.139
Asymp. Sig. (2-tailed)	.032
Exact Sig. [2*(1-tailed Sig.)]	.033 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K8 & K0^a

SOD_Enzym	
Mann-Whitney U	148.000
Wilcoxon W	358.000
Z	-1.408
Asymp. Sig. (2-tailed)	.159
Exact Sig. [2*(1-tailed Sig.)]	.165 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Keterangan:

- K₁ : Kelompok perlakuan dengan teh rania, dengan gel ekstrak rania 15 %
 K₂ : Kelompok perlakuan dengan teh rania, dengan gel ekstrak pegagan 15 %
 K₃ : Kelompok perlakuan dengan teh *Camellia sinensis*, dengan gel ekstrak rania 15 %
 K₄ : Kelompok perlakuan dengan teh *Camellia sinensis*, dengan gel ekstrak pegagan 15 %
 K₅ : Kelompok perlakuan dengan teh rania, tanpa gel ekstrak rania 15% dan tanpa gel ekstrak pegagan 15 %
 K₆ : Kelompok perlakuan dengan teh *Camellia sinensis*, tanpa gel ekstrak rania 15% dan tanpa gel ekstrak pegagan 15 %
 K₇ : Kelompok perlakuan tanpa teh *Camellia sinensis* dan tanpa teh rania dengan gel ekstrak rania 15 %
 K₈ : Kelompok perlakuan tanpa teh *Camellia sinensis* dan tanpa teh rania, dengan gel ekstrak pegagan 15 %
 K₀ : Kelompok kontrol, tanpa teh rania, tanpa teh *Camellia sinensis*, tanpa gel ekstrak rania 15% dan tanpa gel ekstrak pegagan 15 %

17. Hasil Uji Aktivitas Enzim CAT

17.1 Uji Normalitas Aktivitas Enzim CAT

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for CAT	.189	180	.000	.876	180	.000

a. Lilliefors Significance Correction

17.2 Uji Homogenitas Aktivitas Enzim CAT

		Levene Statistic	df1	df2	Sig.
CAT	Based on Mean	1.086	35	144	.358
	Based on Median	.939	35	144	.571
	Based on Median and with adjusted df	.939	35	135.352	.571
	Based on trimmed mean	1.094	35	144	.348

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Dependent variable: CAT
b. Design: Intercept + Waktu + Kelompok + Waktu * Kelompok

17.3 (Mean ± SD) Aktivitas Enzim CAT

Kel	(Mean ± SD) Aktivitas CAT				p
	0 jam	12 jam	24 jam	48 jam	
K1	3.624 ± 0.104	4.78 ± 0.86	3.55 ± 0.0016	4.92675 ± 0.0013	0,000
K2	1.490 ± 0.10	13.252 ± 0.11	6.104 ± 0.0012	5.4715 ± 0.0024	
K3	0.000 ± 0.000	22.28 ± 0.05	1.136 ± 0.0015	6.599 ± 0.0015	
K4	0.842 ± 0.103	11.828 ± 0.11	3.466 ± 0.0026	4.189250 ± 0.0015	
K5	6.231 ± 0.101	10.353 ± 0.12	5.87 ± 0.0013	6.166 ± 0.0018	
K6	0.818 ± 0.103	2.091 ± 0.10	3.991 ± 0.0017	1.786 ± 0.008	
K7	0.318 ± 0.08	42.629 ± 0.15	2.979 ± 0.003	11.9415 ± 0.0013	
K8	0.214 ± 0.063	6.336 ± 0.067	4.485 ± 0.0029	4.014 ± 0.002	
K0	0.341 ± 0.10	3.691 ± 0.11	3.813 ± 0.0033	2.449750 ± 0.0015	

17.4 Uji Statistik (Friedman) Aktivitas Enzim CAT

N	20
Chi-Square	34.320
df	8
Asymp. Sig.	.000

a. Friedman Test

17.5 Uji Lanjutan Aktivitas Enzim CAT

Test Statistics K1 & K2^a

	CAT_Enzym
Mann-Whitney U	175.000
Wilcoxon W	385.000
Z	-.676
Asymp. Sig. (2-tailed)	.499
Exact Sig. [2*(1-tailed Sig.)]	.512 ^b

a. Grouping Variable: Intervensi

b. Not corrected for ties.

Test Statistics K1 & K4^a

	CAT_Enzym
Mann-Whitney U	112.000
Wilcoxon W	322.000
Z	-2.380
Asymp. Sig. (2-tailed)	.017
Exact Sig. [2*(1-tailed Sig.)]	.017 ^b

a. Grouping Variable: Intervensi

b. Not corrected for ties.

Test Statistics K1 & K6^a

	CAT_Enzym
Mann-Whitney U	50.000
Wilcoxon W	260.000
Z	-4.058
Asymp. Sig. (2-tailed)	.000
Exact Sig. [2*(1-tailed Sig.)]	.000 ^b

a. Grouping Variable: Intervensi

b. Not corrected for ties.

Test Statistics K1 & K8^a

	CAT_Enzym
Mann-Whitney U	200.000
Wilcoxon W	410.000
Z	.000
Asymp. Sig. (2-tailed)	1.000
Exact Sig. [2*(1-tailed Sig.)]	1.000 ^b

a. Grouping Variable: Intervensi

b. Not corrected for ties.

Test Statistics K1 & K3^a

	CAT_Enzym
Mann-Whitney U	100.000
Wilcoxon W	310.000
Z	-2.708
Asymp. Sig. (2-tailed)	.007
Exact Sig. [2*(1-tailed Sig.)]	.006 ^b

a. Grouping Variable: Intervensi

b. Not corrected for ties.

Test Statistics K1 & K5^a

	CAT_Enzym
Mann-Whitney U	150.000
Wilcoxon W	360.000
Z	-1.353
Asymp. Sig. (2-tailed)	.176
Exact Sig. [2*(1-tailed Sig.)]	.183 ^b

a. Grouping Variable: Intervensi

b. Not corrected for ties.

Test Statistics K1 & K7^a

	CAT_Enzym
Mann-Whitney U	100.000
Wilcoxon W	310.000
Z	-2.705
Asymp. Sig. (2-tailed)	.007
Exact Sig. [2*(1-tailed Sig.)]	.006 ^b

a. Grouping Variable: Intervensi

b. Not corrected for ties.

Test Statistics K1 & K0^a

	CAT_Enzym
Mann-Whitney U	85.000
Wilcoxon W	295.000
Z	-3.111
Asymp. Sig. (2-tailed)	.002
Exact Sig. [2*(1-tailed Sig.)]	.001 ^b

a. Grouping Variable: Intervensi

b. Not corrected for ties.

Test Statistics K2 & K3^a

	CAT_Enzym
Mann-Whitney U	169.000
Wilcoxon W	379.000
Z	-.839
Asymp. Sig. (2-tailed)	.401
Exact Sig. [2*(1-tailed Sig.)]	.414 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K2 & K5^a

	CAT_Enzym
Mann-Whitney U	154.000
Wilcoxon W	364.000
Z	-1.244
Asymp. Sig. (2-tailed)	.213
Exact Sig. [2*(1-tailed Sig.)]	.221 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K2 & K7^a

	CAT_Enzym
Mann-Whitney U	200.000
Wilcoxon W	410.000
Z	.000
Asymp. Sig. (2-tailed)	1.000
Exact Sig. [2*(1-tailed Sig.)]	1.000 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K2 & K0^a

	CAT_Enzym
Mann-Whitney U	150.000
Wilcoxon W	360.000
Z	-1.353
Asymp. Sig. (2-tailed)	.176
Exact Sig. [2*(1-tailed Sig.)]	.183 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K2 & K4^a

	CAT_Enzym
Mann-Whitney U	128.000
Wilcoxon W	338.000
Z	-1.948
Asymp. Sig. (2-tailed)	.051
Exact Sig. [2*(1-tailed Sig.)]	.052 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K2 & K6^a

	CAT_Enzym
Mann-Whitney U	101.000
Wilcoxon W	311.000
Z	-2.678
Asymp. Sig. (2-tailed)	.007
Exact Sig. [2*(1-tailed Sig.)]	.007 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K2 & K8^a

	CAT_Enzym
Mann-Whitney U	175.000
Wilcoxon W	385.000
Z	-.676
Asymp. Sig. (2-tailed)	.499
Exact Sig. [2*(1-tailed Sig.)]	.512 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K3 & K4^a

	CAT_Enzym
Mann-Whitney U	200.000
Wilcoxon W	410.000
Z	.000
Asymp. Sig. (2-tailed)	1.000
Exact Sig. [2*(1-tailed Sig.)]	1.000 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K3 & K5^a

	CAT_Enzym
Mann-Whitney U	125.000
Wilcoxon W	335.000
Z	-2.031
Asymp. Sig. (2-tailed)	.042
Exact Sig. [2*(1-tailed Sig.)]	.043 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K3 & K7^a

	CAT_Enzym
Mann-Whitney U	164.000
Wilcoxon W	374.000
Z	-.975
Asymp. Sig. (2-tailed)	.330
Exact Sig. [2*(1-tailed Sig.)]	.341 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K3 & K0^a

	CAT_Enzym
Mann-Whitney U	175.000
Wilcoxon W	385.000
Z	-.677
Asymp. Sig. (2-tailed)	.498
Exact Sig. [2*(1-tailed Sig.)]	.512 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K4 & K6^a

	CAT_Enzym
Mann-Whitney U	157.000
Wilcoxon W	367.000
Z	-1.163
Asymp. Sig. (2-tailed)	.245
Exact Sig. [2*(1-tailed Sig.)]	.253 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K3 & K6^a

	CAT_Enzym
Mann-Whitney U	175.000
Wilcoxon W	385.000
Z	-.677
Asymp. Sig. (2-tailed)	.498
Exact Sig. [2*(1-tailed Sig.)]	.512 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K3 & K8^a

	CAT_Enzym
Mann-Whitney U	150.000
Wilcoxon W	360.000
Z	-1.354
Asymp. Sig. (2-tailed)	.176
Exact Sig. [2*(1-tailed Sig.)]	.183 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K4 & K5^a

	CAT_Enzym
Mann-Whitney U	125.000
Wilcoxon W	335.000
Z	-2.029
Asymp. Sig. (2-tailed)	.042
Exact Sig. [2*(1-tailed Sig.)]	.043 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K4 & K7^a

	CAT_Enzym
Mann-Whitney U	200.000
Wilcoxon W	410.000
Z	.000
Asymp. Sig. (2-tailed)	1.000
Exact Sig. [2*(1-tailed Sig.)]	1.000 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K4 & K8^a

	CAT_Enzym
Mann-Whitney U	175.000
Wilcoxon W	385.000
Z	-.676
Asymp. Sig. (2-tailed)	.499
Exact Sig. [2*(1-tailed Sig.)]	.512 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K5 & K6^a

	CAT_Enzym
Mann-Whitney U	31.000
Wilcoxon W	241.000
Z	-4.571
Asymp. Sig. (2-tailed)	.000
Exact Sig. [2*(1-tailed Sig.)]	.000 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K5 & K8^a

	CAT_Enzym
Mann-Whitney U	120.000
Wilcoxon W	330.000
Z	-2.164
Asymp. Sig. (2-tailed)	.030
Exact Sig. [2*(1-tailed Sig.)]	.030 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K6 & K7^a

	CAT_Enzym
Mann-Whitney U	158.000
Wilcoxon W	368.000
Z	-1.136
Asymp. Sig. (2-tailed)	.256
Exact Sig. [2*(1-tailed Sig.)]	.265 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K4 & K0^a

	CAT_Enzym
Mann-Whitney U	199.000
Wilcoxon W	409.000
Z	-.027
Asymp. Sig. (2-tailed)	.978
Exact Sig. [2*(1-tailed Sig.)]	.989 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K5 & K7^a

	CAT_Enzym
Mann-Whitney U	125.000
Wilcoxon W	335.000
Z	-2.029
Asymp. Sig. (2-tailed)	.042
Exact Sig. [2*(1-tailed Sig.)]	.043 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K5 & K0^a

	CAT_Enzym
Mann-Whitney U	50.000
Wilcoxon W	260.000
Z	-4.058
Asymp. Sig. (2-tailed)	.000
Exact Sig. [2*(1-tailed Sig.)]	.000 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K6 & K8^a

	CAT_Enzym
Mann-Whitney U	90.000
Wilcoxon W	300.000
Z	-2.976
Asymp. Sig. (2-tailed)	.003
Exact Sig. [2*(1-tailed Sig.)]	.002 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K6 & K0^a

	CAT_Enzym
Mann-Whitney U	174.000
Wilcoxon W	384.000
Z	-.703
Asymp. Sig. (2-tailed)	.482
Exact Sig. [2*(1-tailed Sig.)]	.495 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K7 & K0^a

	CAT_Enzym
Mann-Whitney U	191.000
Wilcoxon W	401.000
Z	-.243
Asymp. Sig. (2-tailed)	.808
Exact Sig. [2*(1-tailed Sig.)]	.820 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K7 & K8^a

	CAT_Enzym
Mann-Whitney U	172.000
Wilcoxon W	382.000
Z	-.757
Asymp. Sig. (2-tailed)	.449
Exact Sig. [2*(1-tailed Sig.)]	.461 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K8 & K0^a

	CAT_Enzym
Mann-Whitney U	98.000
Wilcoxon W	308.000
Z	-2.759
Asymp. Sig. (2-tailed)	.006
Exact Sig. [2*(1-tailed Sig.)]	.005 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Keterangan:

- K₁ : Kelompok perlakuan dengan teh ramania, dengan gel ekstrak ramania 15 %
K₂ : Kelompok perlakuan dengan teh ramania, dengan gel ekstrak pegagan 15 %
K₃ : Kelompok perlakuan dengan teh *Camellia sinensis*, dengan gel ekstrak ramania 15 %
K₄ : Kelompok perlakuan dengan teh *Camellia sinensis*, dengan gel ekstrak pegagan 15 %
K₅ : Kelompok perlakuan dengan teh ramania, tanpa gel ekstrak ramania 15 % dan tanpa gel ekstrak pegagan 15 %
K₆ : Kelompok perlakuan dengan teh *Camellia sinensis*, tanpa gel ekstrak ramania 15 % dan tanpa gel ekstrak pegagan 15 %
K₇ : Kelompok perlakuan tanpa teh *Camellia sinensis* dan tanpa teh ramania dengan gel ekstrak ramania 15 %
K₈ : Kelompok perlakuan tanpa teh *Camellia sinensis* dan tanpa teh ramania, dengan gel ekstrak pegagan 15 %
K₀ : Kelompok kontrol, tanpa teh ramania, tanpa teh *Camellia sinensis*, tanpa gel ekstrak ramania 15 % dan tanpa gel ekstrak pegagan 15 %

18. Hasil Uji Aktivitas Enzim GPx

18.1 Uji Normalitas Aktivitas Enzim GPx

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual for GPx	.173	180	.000	.924	180	.000

a. Lilliefors Significance Correction

18.2 Uji Homogenitas

Levene's Test of Equality of Error Variances^{a,b}

		Levene Statistic	df1	df2	Sig.
GPx	Based on Mean	6.433	35	144	.000
	Based on Median	2.384	35	144	.000
	Based on Median and with adjusted df	2.384	35	32.969	.007
	Based on trimmed mean	6.267	35	144	.000

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Dependent variable: GPx

b. Design: Intercept + Waktu + Kelompok + Waktu * Kelompok

18.3 (Mean ± SD) Aktivitas Enzim GPx

Kel	(Mean ± SD) Aktivitas GPx				p
	0 jam	12 jam	24 jam	48 jam	
K1	13.332 ± 0.99	32.246 ± 0.83	54.44 ± 1.44	56.67 ± 0.94	0,000
K2	14.444 ± 1.167	40.00 ± 0.80	61.11 ± 1.47	64.44 ± 0.87	
K3	22.472 ± 1.189	47.778 ± 0.76	53.33 ± 1.30	63.33 ± 0.84	
K4	24.36 ± 0.48	51.011 ± 0.71	48.88 ± 2.16	76.66 ± 0.7	
K5	16.667 ± 2.25	43.33 ± 0.80	52.22 ± 1.70	73.33 ± 0.85	
K6	20.00 ± 3.25	41.11 ± 1.15	46.667 ± 1.62	78.89 ± 0.90	
K7	23.33 ± 0.79	43.333 ± 0.86	57.778 ± 1.41	77.77 ± 0.97	
K8	24.36 ± 0.55	42.222 ± 0.47	59.00 ± 1.33	80.00 ± 0.80	
K0	24.444 ± 1.86	30.00 ± 1.69	46.667 ± 2.51	66.67 ± 0.87	

18.4 Uji Statistik (Friedman)

Test Statistics^a

N	20
Chi-Square	52.856
df	8
Asymp. Sig.	.000

a. Friedman Test

18.5 Uji Lanjutan Aktivitas Enzim GPx

Test Statistics K1 & K2^a

	GPx_Enzym
Mann-Whitney U	131.000
Wilcoxon W	341.000
Z	-1.867
Asymp. Sig. (2-tailed)	.062
Exact Sig. [2*(1-tailed Sig.)]	.063 ^b

a. Grouping Variable: Intervensi

b. Not corrected for ties.

Test Statistics K1 & K4^a

	GPx_Enzym
Mann-Whitney U	175.000
Wilcoxon W	385.000
Z	-.676
Asymp. Sig. (2-tailed)	.499
Exact Sig. [2*(1-tailed Sig.)]	.512 ^b

a. Grouping Variable: Intervensi

b. Not corrected for ties.

Test Statistics K1 & K6^a

	GPx_Enzym
Mann-Whitney U	175.000
Wilcoxon W	385.000
Z	-.676
Asymp. Sig. (2-tailed)	.499
Exact Sig. [2*(1-tailed Sig.)]	.512 ^b

a. Grouping Variable: Intervensi

b. Not corrected for ties.

Test Statistics K1 & K8^a

	GPx_Enzym
Mann-Whitney U	126.000
Wilcoxon W	336.000
Z	-2.002
Asymp. Sig. (2-tailed)	.045
Exact Sig. [2*(1-tailed Sig.)]	.046 ^b

a. Grouping Variable: Intervensi

b. Not corrected for ties.

Test Statistics K1 & K3^a

	GPx_Enzym
Mann-Whitney U	168.000
Wilcoxon W	378.000
Z	-.866
Asymp. Sig. (2-tailed)	.387
Exact Sig. [2*(1-tailed Sig.)]	.398 ^b

a. Grouping Variable: Intervensi

b. Not corrected for ties.

Test Statistics K1 & K5^a

	GPx_Enzym
Mann-Whitney U	174.000
Wilcoxon W	384.000
Z	-.703
Asymp. Sig. (2-tailed)	.482
Exact Sig. [2*(1-tailed Sig.)]	.495 ^b

a. Grouping Variable: Intervensi

b. Not corrected for ties.

Test Statistics K1 & K7^a

	GPx_Enzym
Mann-Whitney U	131.000
Wilcoxon W	341.000
Z	-1.866
Asymp. Sig. (2-tailed)	.062
Exact Sig. [2*(1-tailed Sig.)]	.063 ^b

a. Grouping Variable: Intervensi

b. Not corrected for ties.

Test Statistics K1 & K0^a

	GPx_Enzym
Mann-Whitney U	199.000
Wilcoxon W	409.000
Z	-.027
Asymp. Sig. (2-tailed)	.978
Exact Sig. [2*(1-tailed Sig.)]	.989 ^b

a. Grouping Variable: Intervensi

b. Not corrected for ties.

Test Statistics K2 & K3^a

	GPx_Enzym
Mann-Whitney U	185.000
Wilcoxon W	395.000
Z	-.406
Asymp. Sig. (2-tailed)	.685
Exact Sig. [2*(1-tailed Sig.)]	.698 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K2 & K5^a

	GPx_Enzym
Mann-Whitney U	186.000
Wilcoxon W	396.000
Z	-.379
Asymp. Sig. (2-tailed)	.705
Exact Sig. [2*(1-tailed Sig.)]	.718 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K2 & K7^a

	GPx_Enzym
Mann-Whitney U	176.000
Wilcoxon W	386.000
Z	-.649
Asymp. Sig. (2-tailed)	.516
Exact Sig. [2*(1-tailed Sig.)]	.529 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K2 & K0^a

	GPx_Enzym
Mann-Whitney U	194.000
Wilcoxon W	404.000
Z	-.162
Asymp. Sig. (2-tailed)	.871
Exact Sig. [2*(1-tailed Sig.)]	.883 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K2 & K4^a

	GPx_Enzym
Mann-Whitney U	177.500
Wilcoxon W	387.500
Z	-.609
Asymp. Sig. (2-tailed)	.543
Exact Sig. [2*(1-tailed Sig.)]	.547 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K2 & K6^a

	GPx_Enzym
Mann-Whitney U	180.000
Wilcoxon W	390.000
Z	-.541
Asymp. Sig. (2-tailed)	.588
Exact Sig. [2*(1-tailed Sig.)]	.602 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K2 & K8^a

	GPx_Enzym
Mann-Whitney U	175.000
Wilcoxon W	385.000
Z	-.676
Asymp. Sig. (2-tailed)	.499
Exact Sig. [2*(1-tailed Sig.)]	.512 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K3 & K4^a

	GPx_Enzym
Mann-Whitney U	185.000
Wilcoxon W	395.000
Z	-.406
Asymp. Sig. (2-tailed)	.685
Exact Sig. [2*(1-tailed Sig.)]	.698 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K3 & K5^a

	GPx_Enzym
Mann-Whitney U	183.000
Wilcoxon W	393.000
Z	-.460
Asymp. Sig. (2-tailed)	.646
Exact Sig. [2*(1-tailed Sig.)]	.659 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K3 & K7^a

	GPx_Enzym
Mann-Whitney U	182.000
Wilcoxon W	392.000
Z	-.487
Asymp. Sig. (2-tailed)	.626
Exact Sig. [2*(1-tailed Sig.)]	.640 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K3 & K0^a

	GPx_Enzym
Mann-Whitney U	179.000
Wilcoxon W	389.000
Z	-.568
Asymp. Sig. (2-tailed)	.570
Exact Sig. [2*(1-tailed Sig.)]	.583 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K4 & K6^a

	GPx_Enzym
Mann-Whitney U	155.000
Wilcoxon W	365.000
Z	-1.217
Asymp. Sig. (2-tailed)	.224
Exact Sig. [2*(1-tailed Sig.)]	.231 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K3 & K6^a

	GPx_Enzym
Mann-Whitney U	163.000
Wilcoxon W	373.000
Z	-1.001
Asymp. Sig. (2-tailed)	.317
Exact Sig. [2*(1-tailed Sig.)]	.327 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K3 & K8^a

	GPx_Enzym
Mann-Whitney U	177.000
Wilcoxon W	387.000
Z	-.622
Asymp. Sig. (2-tailed)	.534
Exact Sig. [2*(1-tailed Sig.)]	.547 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K4 & K5^a

	GPx_Enzym
Mann-Whitney U	166.000
Wilcoxon W	376.000
Z	-.920
Asymp. Sig. (2-tailed)	.358
Exact Sig. [2*(1-tailed Sig.)]	.369 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K4 & K7^a

	GPx_Enzym
Mann-Whitney U	198.000
Wilcoxon W	408.000
Z	-.054
Asymp. Sig. (2-tailed)	.957
Exact Sig. [2*(1-tailed Sig.)]	.968 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K4 & K8^a

	GPx_Enzym
Mann-Whitney U	189.000
Wilcoxon W	399.000
Z	-.298
Asymp. Sig. (2-tailed)	.766
Exact Sig. [2*(1-tailed Sig.)]	.779 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K5 & K6^a

	GPx_Enzym
Mann-Whitney U	194.000
Wilcoxon W	404.000
Z	-.162
Asymp. Sig. (2-tailed)	.871
Exact Sig. [2*(1-tailed Sig.)]	.883 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K5 & K8^a

	GPx_Enzym
Mann-Whitney U	173.000
Wilcoxon W	383.000
Z	-.730
Asymp. Sig. (2-tailed)	.465
Exact Sig. [2*(1-tailed Sig.)]	.478 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K6 & K7^a

	GPx_Enzym
Mann-Whitney U	175.000
Wilcoxon W	385.000
Z	-.676
Asymp. Sig. (2-tailed)	.499
Exact Sig. [2*(1-tailed Sig.)]	.512 ^b

- a. Grouping Variable: Intervensi

Test Statistics K4 & K0^a

	GPx_Enzym
Mann-Whitney U	147.000
Wilcoxon W	357.000
Z	-1.434
Asymp. Sig. (2-tailed)	.152
Exact Sig. [2*(1-tailed Sig.)]	.157 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K5 & K7^a

	GPx_Enzym
Mann-Whitney U	161.500
Wilcoxon W	371.500
Z	-1.042
Asymp. Sig. (2-tailed)	.298
Exact Sig. [2*(1-tailed Sig.)]	.301 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K5 & K0^a

	GPx_Enzym
Mann-Whitney U	173.000
Wilcoxon W	383.000
Z	-.730
Asymp. Sig. (2-tailed)	.465
Exact Sig. [2*(1-tailed Sig.)]	.478 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K6 & K0^a

	GPx_Enzym
Mann-Whitney U	182.500
Wilcoxon W	392.500
Z	-.473
Asymp. Sig. (2-tailed)	.636
Exact Sig. [2*(1-tailed Sig.)]	.640 ^b

- a. Grouping Variable: Intervensi
b. Not corrected for ties.

Test Statistics K7 & K8^a

	GPx_Enzym
Mann-Whitney U	181.000
Wilcoxon W	391.000
Z	-.514
Asymp. Sig. (2-tailed)	.607
Exact Sig. [2*(1-tailed Sig.)]	.620 ^b

a. Grouping Variable: Intervensi

b. Not corrected for ties.

Test Statistics K7 & K0^a

	GPx_Enzym
Mann-Whitney U	164.000
Wilcoxon W	374.000
Z	-.974
Asymp. Sig. (2-tailed)	.330
Exact Sig. [2*(1-tailed Sig.)]	.341 ^b

a. Grouping Variable: Intervensi

Test Statistics K8 & K0^a

	GPx_Enzym
Mann-Whitney U	165.000
Wilcoxon W	375.000
Z	-.947
Asymp. Sig. (2-tailed)	.344
Exact Sig. [2*(1-tailed Sig.)]	.355 ^b

a. Grouping Variable: Intervensi

b. Not corrected for ties.

Test Statistics K6 & K8^a

	GPx_Enzym
Mann-Whitney U	163.000
Wilcoxon W	373.000
Z	-1.001
Asymp. Sig. (2-tailed)	.317
Exact Sig. [2*(1-tailed Sig.)]	.327 ^b

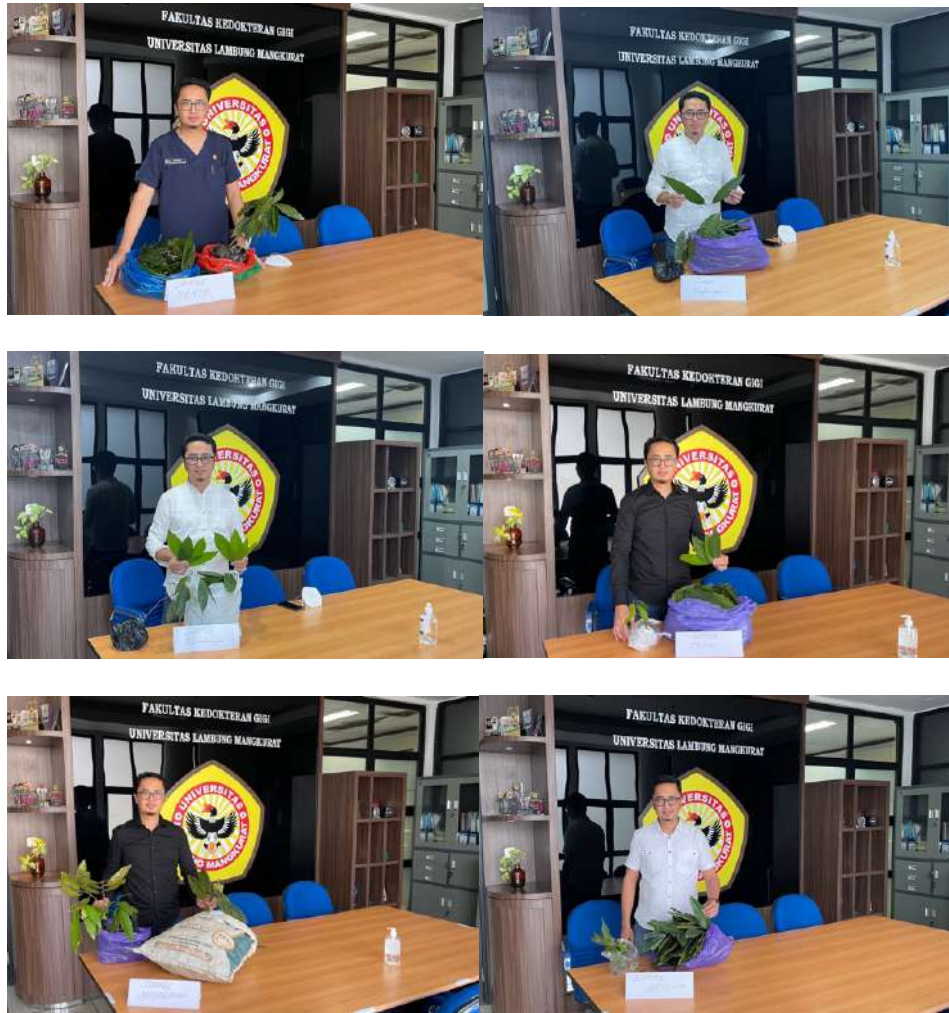
a. Grouping Variable: Intervensi

b. Not corrected for ties.

Keterangan:

- K₁ : Kelompok perlakuan dengan teh ramania, dengan gel ekstrak ramania 15 %
- K₂ : Kelompok perlakuan dengan teh ramania, dengan gel ekstrak pegagan 15 %
- K₃ : Kelompok perlakuan dengan teh *Camellia sinensis*, dengan gel ekstrak ramania 15 %
- K₄ : Kelompok perlakuan dengan teh *Camellia sinensis*, dengan gel ekstrak pegagan 15 %
- K₅ : Kelompok perlakuan dengan teh ramania, tanpa gel ekstrak ramania 15 % dan tanpa gel ekstrak pegagan 15 %
- K₆ : Kelompok perlakuan dengan teh *Camellia sinensis*, tanpa gel ekstrak ramania 15 % dan tanpa gel ekstrak pegagan 15 %
- K₇ : Kelompok perlakuan tanpa teh *Camellia sinensis* dan tanpa teh ramania dengan gel ekstrak ramania 15 %
- K₈ : Kelompok perlakuan tanpa teh *Camellia sinensis* dan tanpa teh ramania, dengan gel ekstrak pegagan 15 %
- K₀ : Kelompok kontrol, tanpa teh ramania, tanpa teh *Camellia sinensis*, tanpa gel ekstrak ramania 15% dan tanpa gel ekstrak pegagan 15 %

19. Sampel Daun Ramania dari beberapa wilayah di Kalimantan Selatan



20. Persiapan Perlakuan Hewan Coba



21. Evaporasi Ekstrak Ramania dan Camelia



22. Ruang Karantina Tikus



23. Proses Sondasi Teh



24. Hasil Pengambilan Sampel Darah Tikus



25. Reagen Aktivitas Enzim



26. Full Set Kit Studio Foto

