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LAMPIRAN

A. Etik Penelitian

KEMENTERIAN RISET, TEKNOLOGI DAN PENDIDIKAN TINGGI
UNIVERSITAS HASANUDDIN
FAKULTAS KEDOKTERAN GIGI
RUMAH SAKIT GIGI DAN MULUT
KOMITE ETIK PENELITIAN KESEHATAN
Sekretariat : Lantai 2, Gedung Lama RSGM Unhas
Jl.Kandea No. 5 Makassar
Contact Person: drg. Muhammad Ikbal, Sp.Pros/Nur Aedah AR TELP. 081342970311/081114919191

REKOMENDASI PERSETUJUAN ETIK
Nomor: 0128/PL.09/KEPK FKG-RSGM UNHAS/2023

Tanggal: 06 Juli 2023

Dengan ini menyatakan bahwa protokol dan dokumen yang berhubungan dengan protokol berikut ini telah mendapatkan persetujuan etik:

No. Protokol	UH 17120867	No Protokol Sponsor	
Peneliti Utama	drg. Rosdiana Agustin	Sponsor	Pribadi
Judul Peneliti	Efektivitas Pasta Cangkang Kerang Hijau (Perna viridis) sebagai Bahan Pulp Capping Perlindungan Pulpa pada Gigi Wistar (Rattus norvegicus) yang Teriinflamasi melalui Ekspresi Matrix Metalloproteinase-1 (MMP-1)		
No. Versi Protokol	1	Tanggal Versi	03 Juli 2023
No. Versi Protokol		Tanggal Versi	
Tempat Penelitian	1. Laboratorium BioKimia Kab.Pangkep 2. Laboratorium Penelitian dan Pengembangan Science FMIPA UNHAS 3. klinik hewan (La Costae Pet Clinic) 4. Laboratorium Patologi Anatomi RSPTN UNHAS 5. Laboratorium Biokimia Fakultas Kedokteran Universitas Brawijaya		
Dokumen Lain			
Jenis Review	[ ] Exempted [x] Expedited [ ] Fullboard	Masa Berlaku 06 Juli 2023-06 Juli 2024	Frekuensi Review Lanjutan
Ketua Komisi Etik Penelitian	Nama: Dr. drg. Marhamah, M.Kes	Tanda Tangan	Tanggal
Sekretaris Komisi Etik Penelitian	Nama: drg. Muhammad Ikbal, Sp.Pros	Tanda Tangan	Tanggal

Kewajiban peneliti utama:

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

B. Pemeriksaan kadar kalsium

KEMENTERIAN PENDIDIKAN, KEBUDAYAAN, RISET DAN TEKNOLOGI
POLITEKNIK PERTANIAN NEGERI PANGKAJENE DAN KEPULAUAN
JURUSAN TEKNOLOGI PENGOLAHAN HASIL PERIKANAN
LABORATORIUM PENGUJIAN KIMIA
Jl. Poros Makassar Pare KM. 83 Mandalle Kec. Mandalle Kab. Pangkep
Telepon. (0410)2312704, 2312703 FAX.(0410)2312705
SULAWESI SELATAN (90655)

HASIL ANALISIS KADAR KALSIUM DAN Zn CANGKANG KERANG HIJAU

NO	CONTOH	KADAR KALSIUM (%)	KADAR Zn (%)
1	Bahan baku cangkang kerang hijau	72,36	0,38
2	HA Cangkang kerang hijau	84,33	0,2
3	Gel HA Cangkang kerang hijau	31,97	0,11

Pangkep, 13 Juni 2023

Mengetahui

Ketua Jurusan Teknologi Pertanian

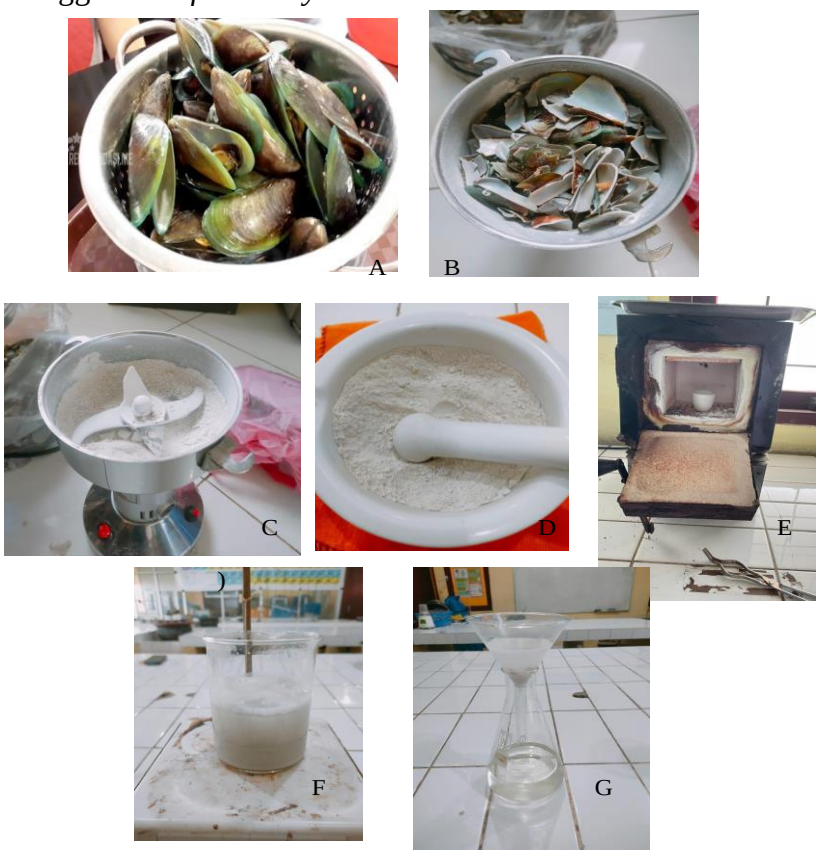
Dr. Andi Ridwan Makkulawu, ST, M.Si
NIP. 197506262001121001

Penanggung jawab Lab. Pengujian Kimia

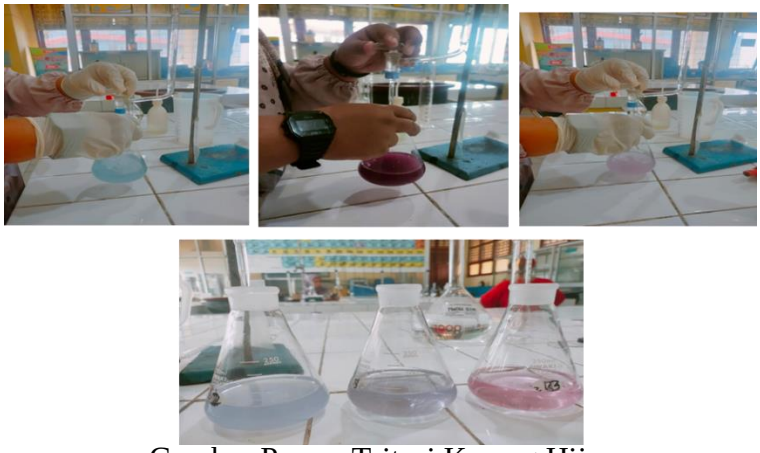
Sahriawati, S.Pi.,MT
NIP. 197507052002122002

C. Dokumentasi Penelitian

1. Proses pembuatan pasta ekstrak cangkang kerang hijau (*Perna* viridis) menggunakan *freeze dryer*

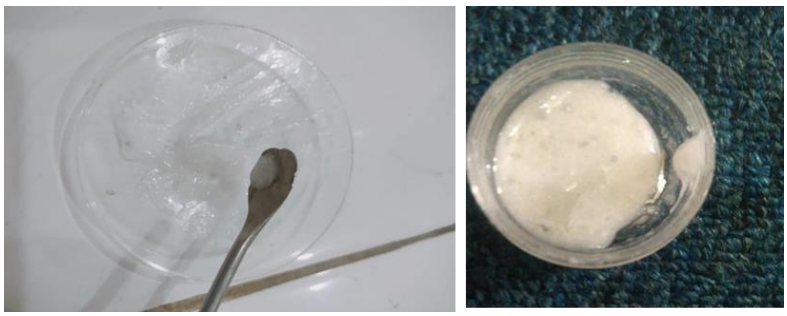


Gambar A. Cangkang Kerang Hijau (*Perna viridis*), B. Penghancuran cangkang kerang hijau (*Perna viridis*), C. Proses Penepungann cangkang kerang hijau (*Perna viridis*), D. Proses Penghaluasan cangkang kerang hijau (*Perna viridis*)E Proses Pengeringan dengan Oven,F Penadukan sampel Kalsinasi setelah ditambahkan aquades,G Proses Penyaringan cangkang kerang hijau (*Perna viridis*)



Gambar Proses Tritasi Kerang Hijau

2. Pasta Ekstrak cangkang kerang hijau (*Perna* viridis)



Gambar A. Proses pembuatan Pasta Ekstrak cangkang kerang hijau (*Perna* viridis)

3. Proses Persiapan dan Adaptasi hewan coba

4. Proses preparasi dan aplikasi bahan uji Pasta Ekstrak cangkang kerang hijau (*Perna* viridis) dan kalsium hidroksida

Gambar A. Preparasi gigi tikus galur wistar (*Rattus norvegicus*) menggunakan *handpiece* dengan *round diamond* bur ukuran ¼ (Mani Inc., Japan) dengan kedalam 0,5 mm, B. Aplikasi bahan uji, C. Kavitas ditutup dengan menggunakan RMGIC dan di *light curing* selama 40 detik.

5. Pembuatan *slide* preparat

Gambar. *Slide* preparat

D. Hasil analisis uji statistik menggunakan SPSS 25,0 *for windows* 10

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Kelompok Perlakuan	Statistic	df	Sig.	Statistic	df	Sig.
MMP-1	P1 (Pasta Perna Viridis 35%+RMGI)	.166	12	.200*	.876	12	.078
	P2 (Pasta Perna viridis 40 % + RMGI)	.197	12	.200*	.914	12	.237
	K+ (Calcium Hidrokside + RMGI)	.234	12	.070	.933	12	.411
	K- (RMGI)	.153	12	.200*	.957	12	.738

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

a. Lilliefors Significance Correction

Oneway (P1)

Notes

Output Created		13-OCT-2023 08:54:13
Comments		
Input	Data	E:\Data Penelitian Kesehatan\drg rosdiana\ROSDIANAN.sav
	Active Dataset	DataSet1
	Filter	klp = 1 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	12
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.

Syntax		ONEWAY mmp1 BY wks /STATISTICS DESCRIPTIVES /MISSING ANALYSIS /POSTHOC=TUKEY LSD ALPHA(0.05).
Resources	Processor Time	00:00:00,03
	Elapsed Time	00:00:00,04

Descriptives

MMP-1

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Hari ke-3	4	5.25	.957	.479	3.73	6.77	4	6
Hari ke-7	4	4.50	1.291	.645	2.45	6.55	3	6
Hari ke 14	4	3.75	.957	.479	2.23	5.27	3	5
Total	12	4.50	1.168	.337	3.76	5.24	3	6

ANOVA

MMP-1

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.500	2	2.250	1.929	.201
Within Groups	10.500	9	1.167		
Total	15.000	11			

Homogeneous Subsets

MMP-1

			Subset for alpha = 0.05
	Waktu	N	1
Tukey HSD[a]	Hari ke 14	4	3.75
	Hari ke-7	4	4.50
	Hari ke-3	4	5.25

Sig.		.177

Means for groups in homogeneous subsets are displayed

a. Uses Harmonic Mean Sample Size = 4.000.

oneway (P2)

Notes

Output Created		13-OCT-2023 08:55:41
Comments		
Input	Data	E:\Data Penelitian Kesehatan\drg rosdiana\ROSDIANAN.sav
	Active Dataset	DataSet1
	Filter	klp = 2 (FILTER)
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	12
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.

	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY mmp1 BY wkt /STATISTICS DESCRIPTIVES /MISSING ANALYSIS /POSTHOC=TUKEY LSD ALPHA(0.05).
Resources	Processor Time	00:00:00,06
	Elapsed Time	00:00:00,07

Descriptives

MMP-1

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Hari ke-3	4	5.00	.816	.408	3.70	6.30	4	6
Hari ke-7	4	4.00	1.826	.913	1.09	6.91	2	6

Hari ke 14	4	2.00	.816	.408	.70	3.30	1	3
Total	12	3.67	1.723	.497	2.57	4.76	1	6

ANOVA

MMP-1

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	18.667	2	9.333	6.000	.022
Within Groups	14.000	9	1.556		
Total	32.667	11			

Homogeneous Subsets

MMP-1

			Subset for alpha = 0.05	
	Waktu	N	1	2
Tukey HSD[a]	Hari ke 14	4	2.00	

	Hari ke-7	4	4.00	4.00
	Hari ke-3	4		5.00
	Sig.		.112	.519

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 4.000.

Oneway (K+)

Notes

Output Created		13-OCT-2023 08:57:08
Comments		
Input	Data	E:\Data Penelitian Kesehatan\drg rosdiana\ROSDIANAN.sav
	Active Dataset	DataSet1
	Filter	klp = 3 (FILTER)
	Weight	<none>
	Split File	<none>

	N of Rows in Working Data File	12
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY mmp1 BY wkt /STATISTICS DESCRIPTIVES /MISSING ANALYSIS /POSTHOC=TUKEY LSD ALPHA(0.05).
Resources	Processor Time	00:00:00,02
	Elapsed Time	00:00:00,09

Descriptives

MMP-1

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Hari ke-3	4	7.50	1.291	.645	5.45	9.55	6	9

Hari ke-7	4	8.00	1.826	.913	5.09	10.91	6	10
Hari ke 14	4	6.25	.957	.479	4.73	7.77	5	7
Total	12	7.25	1.485	.429	6.31	8.19	5	10

ANOVA

MMP-1

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.500	2	3.250	1.648	.246
Within Groups	17.750	9	1.972		
Total	24.250	11			

Homogeneous Subsets

MMP-1

		Subset for alpha = 0.05
Waktu	N	1

Tukey HSD[a]	Hari ke 14	4	6.25
	Hari ke-3	4	7.50
	Hari ke-7	4	8.00
	Sig.		.236

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 4.000.

Oneway (K-)

Notes

Output Created		13-OCT-2023 09:25:59
Comment		
Input	Data	E:\Data Penelitian Kesehatan\drg rosdiana\ROSDIANAN.sav
	Active Dataset	DataSet1
	Filter	klp = 4 (FILTER)
	Weight	<none>
	Split File	<none>

	N of Rows in Working Data File	12
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY mmp1 BY wkt /STATISTICS DESCRIPTIVES /MISSING ANALYSIS /POSTHOC=TUKEY LSD ALPHA(0.05).
Resources	Processor Time	00:00:00,05
	Elapsed Time	00:00:00,06

Descriptives

MMP-1

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		

Hari ke-3	4	12.50	1.291	.645	10.45	14.55	11	14
Hari ke-7	4	12.75	1.708	.854	10.03	15.47	11	15
Hari ke 14	4	11.50	1.291	.645	9.45	13.55	10	13
Total	12	12.25	1.422	.411	11.35	13.15	10	15

ANOVA

MMP-1

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.500	2	1.750	.840	.463
Within Groups	18.750	9	2.083		
Total	22.250	11			

Homogeneous Subsets

MMP-1

		Subset for alpha =
Waktu	N	0.05

			1
Tukey HSD[a]	Hari ke 14	4	11.50
	Hari ke-3	4	12.50
	Hari ke-7	4	12.75
	Sig.		.469

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 4.000.