

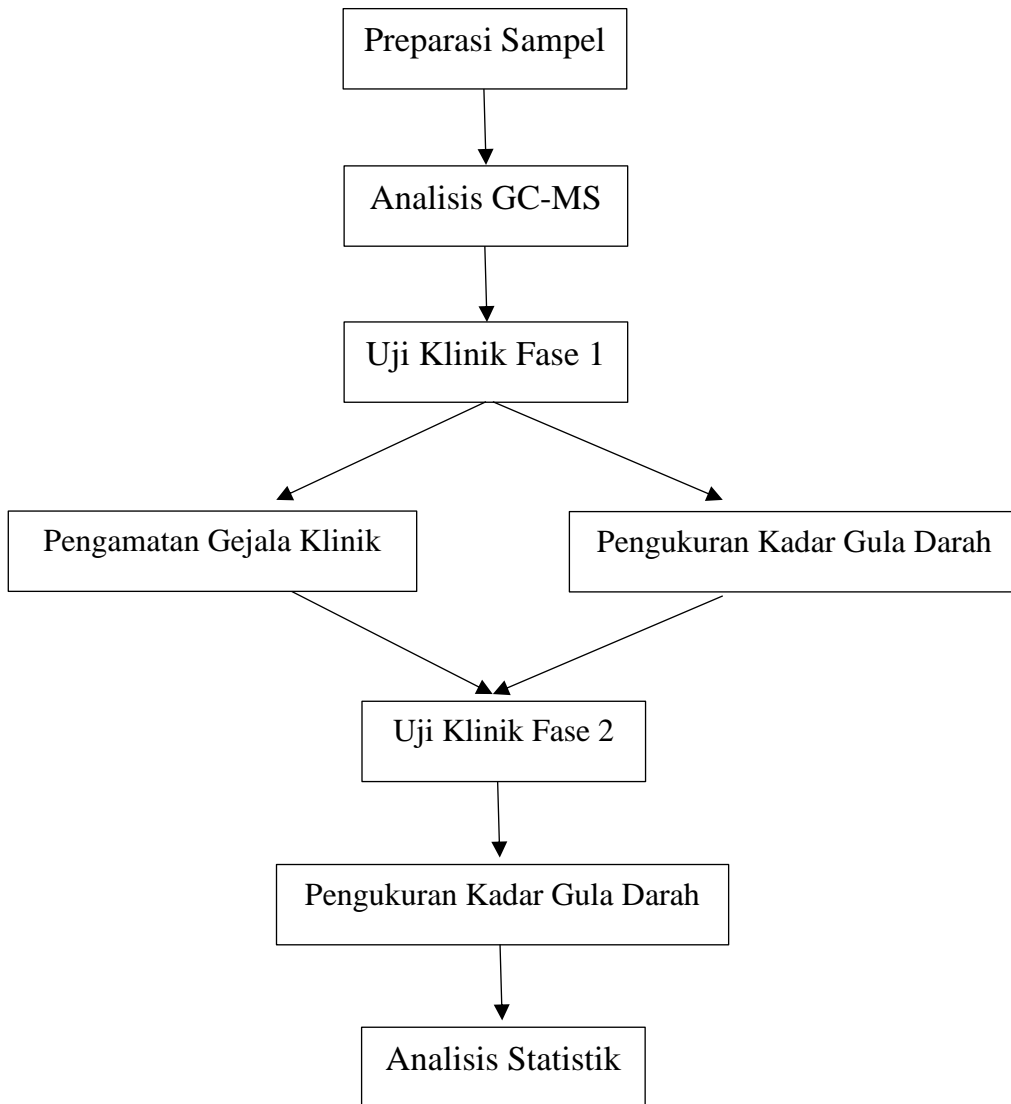
DAFTAR PUSTAKA

- American Diabetes Association., 2004. Hypertension Management in adultswith diabetes (position statement). *Diabetes Care* (Suppl 1): S65-S67.
- Andayani, R., Mubarak, Z., & Rinanda, D. R. (2016). Aktivitas Antibakteri Tepung Cacing Tanah (*Lumbricus rubellus*) Terhadap *Enterococcus faecalis* Secara In Vitro. *Journal of Syiah Kuala Dentistry Society*, 1(2), 201-210.
- Andayani, R., Mubarak, Z., & Rinanda, D. R. (2016). Aktivitas Antibakteri Tepung Cacing Tanah (*Lumbricus rubellus*) Terhadap *Enterococcus faecalis* Secara In Vitro. *Journal of Syiah Kuala Dentistry Society*, 1(2), 201-210.
- CABI. (2019). *Cinnamomum burmanni* (Padang Cassia). In Cabi (Ed.), *Compendium*.
- Darmapatni, K. A. G., A. Basori, dan N. M. Suaniti., 2016, Pengembangan Metode GC-MS Untuk Penetapan Kadar Acetaminophen Pada Spesimen Rambut Manusia. *Jurnal Biosains Pascasarjana*. 3(18): 62-69.
- Emilda, E. (2018). Efek senyawa bioaktif kayu manis *cinnamomum burmannii* nees ex. Bl.) Terhadap diabetes melitus: kajian pustaka. *Jurnal Fitofarmaka Indonesia*, 5(1), 246-252.
- Faida, A. N., & Santik, Y. D. P. (2020). Kejadian Diabetes Melitus Tipe I pada Usia 10-30 Tahun. *HIGEIA (Journal of Public Health Research and Development)*, 4(1), 33-42.
- Fajar, A., Ammar, G. A., Hamzah, M., Manurung, R., & Abduh, M. Y. (2019). *Effect of tree age on the yield , productivity, and chemical composition of essential oil from Cinnamomum burmannii*. *Current Research on Biosciences and Biotechnology*, 1(1), 17–22.
- Fatmawati, A., & Mustin, M. (2017). Analisis Faktor Dominan Yang Memengaruhi Kadar Gula Darah Pasien Diabetes Mellitustipe 2. *Jurnal Keperawatan'Aisyiyah*, 4(1), 29-35.
- Firdausi, K. N. A., Sugiyanta, & Wulandari, P. (2017). Perbandingan Efektivitas Minyak Jagung (*Zea mays*) dengan Minyak Kelapa Murni (*Cocos nucifera* L.) terhadap Penurunan Kadar Glukosa Darah Tikus Wistar yang Diinjeksi Alloxane. *Journal of Agromedicine and Medical Sciencess*, 3(3), 50-54.
- Gandjar, I.G. dan Rohman, A., 2012, Analisis Obat Secara Spektrofotometri dan Kromatografi, Pustaka Pelajar, Yogyakarta.
- Hapsari, Y., & Simanjuntak, P. (2016). Study Senyawa Kimia Dalam Fase Ekstrak Etil Asetat Simplisia *Cinnamomum* spp. Secara KCKT dan KG-SM. *Jurnal Kimia Mulawarman*, 8(1).

- Hasyim, Z., 2003, Efektivitas Cacing Tanah (*Lumbricus rubellus*) Sebagai Kandidat Antibakteri *Salmonella thypi* Penyebab Demam Typhoid, *Jurnal Bioma* Vol. 3 No.5.
- Hestiana, D. W. (2017). Faktor-faktor yang berhubungan dengan kepatuhan dalam pengelolaan diet pada pasien rawat jalan diabetes mellitus tipe 2 di Kota Semarang. *JHE (Journal of Health Education)*, 2(2), 137-145.
- iNaturalist, 2020, Redhead Worm (*Lumbricus rubellus*) Available at <https://www.inaturalist.org/taxa/199376-Lumbricus-rubellus> On 06/12/22.
- International Diabetes Federation (IDF), 2021, IDF Diabetes Atlas Available at <https://diabetesatlas.org/regional-factsheets/> on 07/12/22.
- Iyos, R. N., & Astuti, P. D. (2017). Pengaruh Ekstrak Daun Sirsak (*Annona muricata* L.) terhadap Penurunan Kadar Glukosa Darah. *Jurnal Majority*, 6(2), 144-148.
- Jonathan, D. A., & Effendi, I. (2020). Analisis Pengelolaan Kas Dalam Upaya Menjaga Tingkat Likuiditas Perusahaan Bongkar Muat (Pbm) Pt. Tao Abadi Jaya Jakarta Periode Tahun 2011-2016. *Jurnal Ilmiah Manajemen dan Bisnis (JIMBI)*, 1(1), 41-50.
- Khafidin, M. A., Nilasari, R., & Al-adawiyah, R. (2018). Hubungan Depresi Terhadap Cardiovascular Disease (CVD) dan Pencegahannya Menggunakan Asam Lemak Omega-3 (Depression Relationship Against Cardiovascular Disease (CVD) and Prevention Using Omega-3 Fatty Acids). *Welcome Speech from Committee and Head of Chemistry*, 35. Vol.3, 12-17.
- Komariah, K., & Rahayu, S. (2020). Hubungan usia, jenis kelamin dan indeks massa tubuh dengan kadar gula darah puasa pada pasien diabetes melitus tipe 2 di klinik pratama rawat jalan proklamasi, Depok, Jawa Barat. *Jurnal Kesehatan Kusuma Husada*, 41-50.
- Landani, A., & Kurniawaty, E. (2018). Pengaruh Pemberian Kayu Manis (*Cinnamomum cassia*) Terhadap Penurunan Gula Darah Pada Penderita Diabetes Melitus Tipe 2. *Jurnal Agromedicine*, 5(1), 546-551.
- Ling, S. S., & Gurupackiam, M. (2017). In-vitro evaluation of the antidiabetic & cytotoxic activities of earthworm (*Lumbricus rubellus*) extracts. *International Journal of Pharmaceutical Sciences and Research*, 8(5), 2302-2308.
- Melcher, H., dan Subroto, A., 2006, Gempur Penyakit dengan Minyak Her Papua, Agro Media Pustaka, Jakarta, 18-19.
- Nasution, S. (2022). Monograf Uji Efektivitas Daya Hambat Ekstrak Cacing Tanah *Lumbricus rubellus* DAN *Pherettima* Sp terhadap bakteri *Salmonella typhi* dan *Staphylococcus aureus*. *PUBLISH BUKU UNPRI PRESS ISBN*.

- Novendy, N., Budi, E., Kurniadi, B. A., Chananta, T. J., Lontoh, S. O., & Tirtasari, S. (2020). Efektivitas pemberian kayu manis dalam penurunan kadar gula darah setelah 2 jam pemberian. *Jurnal Muara Sains, Teknologi, Kedokteran dan Ilmu Kesehatan*, 4(2), 433-442.
- Palungkun, R., 2006. *Sukses Beternak Cacing Tanah Lumbricus rubellus*. Penebar Swadaya. Jakarta.
- Rachmawati, N., & Kusumaningrum, N. S. D. (2017). *Gambaran Kontrol dan Kadar Gula Darah pada Pasien Diabetes Melitus di Poliklinik Penyakit Dalam RSJ Prof. Dr. Soerojo Magelang* (Doctoral dissertation, Universitas Diponegoro).
- Solidayah, Wili., Sunendiari, Siti., Wachidah, Lisnur. 2015. Modifikasi Peringkat Bertanda Wilcoxon. Prosiding Statistika Gelombang 2 Tahun 2014- 2015.
- Sudradjat, S. E. (2016). Mengenal berbagai obat herbal dan penggunaannya. *Jurnal Kedokteran Meditek*, 22(60), 62-71.
- Sunendiari, S., & Wachidah, L. (2015). Uji Modifikasi Peringkat Bertanda Wilcoxon Untuk Masalah Dua Sampel Berpasangan. *Prosiding Statistika*, 19-26.
- Syahid, Z. M. (2021). Faktor yang Berhubungan dengan Kepatuhan Pengobatan Diabetes Mellitus. *Jurnal Ilmiah Kesehatan Sandi Husada*, 10(1), 147-155.
- Syamson, M. M. (2021). Analisis efektivitas penggunaan daun sirsak (*Annona Muricata* linn) terhadap penurunan kadar gula darah pada pasien diabetes melitus. *Holistik Jurnal Kesehatan*, 15(2), 312-320.
- Triwiyanti, Ardina, T., Maghfira, R. 2019. Statistika Induktif Uji Wilcoxon, Dependen T Tes, Dan Independen T Tes.
- Verdini, L., Setiawan, B., Sinaga, T., & Sulaeman, A. (2020). Profil Fitokimia Kayu Manis Asal Tiga Daerah Sentra Di Sumatera Phytochemical Profiles of Cinnamon from Three Central Regions in Sumatera.
- Wardani, D. K., Rawinda, R. F., & Ashoumi, H. (2021). Pengaruh Penerapan Modul Quran Hadist Terhadap Hasil Belajar Peserta Didik Kelas X MA Islamiyah Kepung Kediri. *Dinamika: Jurnal Kajian Pendidikan dan KeIslaman*, 6(2), 1-12.
- Wikibrief, 2021, *Cinnamomum burmannii* Available at https://de.wikibrief.org/wiki/Cinnamomum_burmannii On 06/12/22.
- Yoo, K. M., Lee, C., Lo, Y. M., & Moon, B. (2012). The Hypoglycemic Effects of American Red Ginseng (*Panax quinquefolius* L.) on a Diabetic Mouse Model. *Journal of Food Science*, 77(7), 147-152.

Lampiran 1. Bagan Alur Penelitian



Lampiran 2. Hasil Uji Statistik

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
A	.170	20	.134	.889	20	.026
B	.122	20	.200*	.949	20	.352

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

a. Lilliefors Significance Correction

Tes Normalitas Gula Darah Fase 1

Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
A	.144	20	.200*	.948	20	.340
B	.180	20	.089	.912	20	.068
C	.115	20	.200*	.977	20	.886

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

a. Lilliefors Significance Correction

Ranks

		N	Mean Rank	Sum of Ranks
B - A	Negative Ranks	12 ^a	12.07	84.50
	Positive Ranks	7 ^b	8.79	105.50
	Ties	1 ^c		
	Total	20		

a. B < A

b. B > A

c. B = A

Tes Normalitas Gula Darah Fase 2

Test Statistics^a

		B - A
Z		-.423 ^b
Asymp. Sig. (2-tailed)		.003

a. Wilcoxon Signed Ranks Test

b. Based on negative ranks.

Uji Wilcoxon Gula Darah Fase 1

Paired Samples Test

		Paired Differences					Significance			
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	One-Sided p	Two-Sided p
					Lower	Upper				
Pair 1	B - A	-34.25000	53.79775	12.02954	-59.42812	-9.07188	-2.847	19	.005	.010

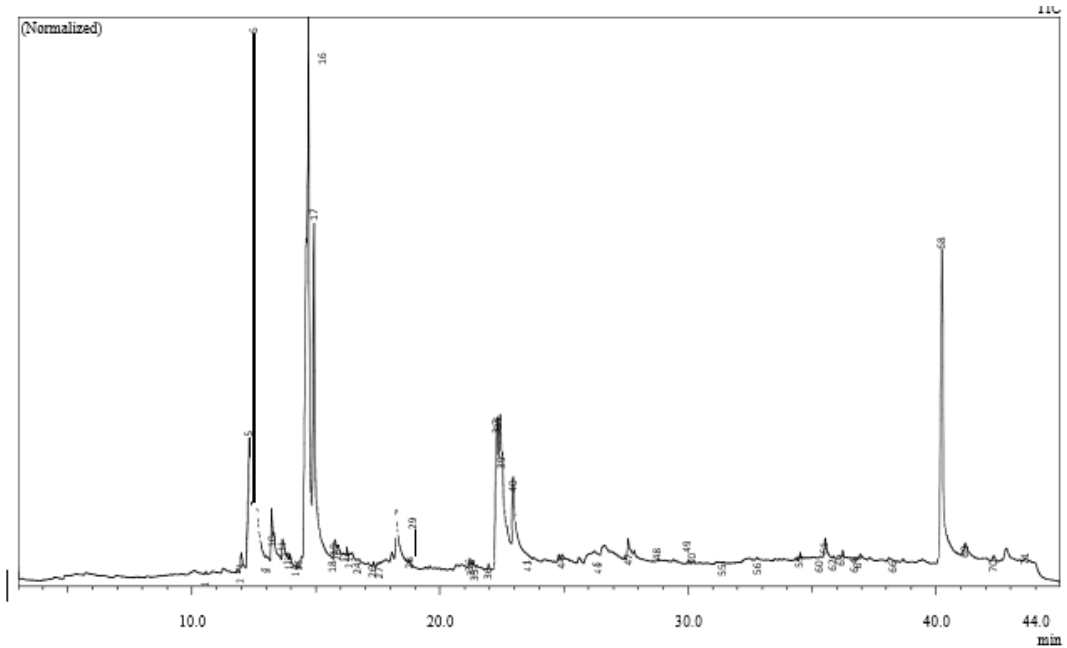
Paired Samples Effect Sizes

		Standardizer ^a	Point Estimate	95% Confidence Interval	
				Lower	Upper
Pair 1	B - A	Cohen's d	53.79775	-.637	-.148
		Hedges' correction	56.04455	-.611	-.142

- a. The denominator used in estimating the effect sizes.
 Cohen's d uses the sample standard deviation of the mean difference.
 Hedges' correction uses the sample standard deviation of the mean difference, plus a correction factor.

Uji Paired Test Gula Darah Fase 2

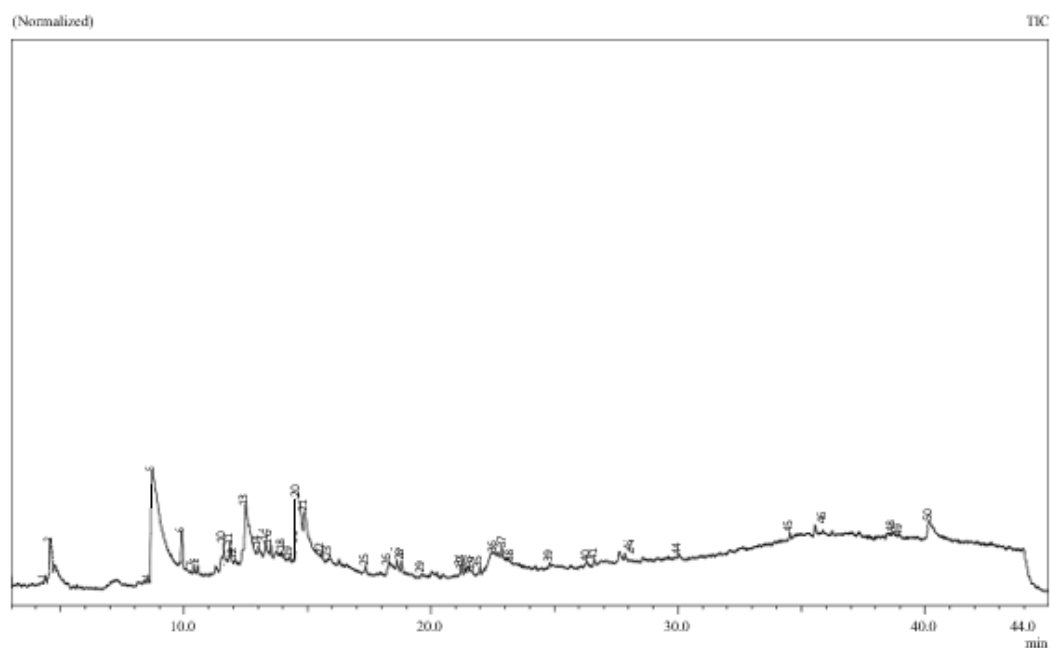
Lampiran 3. Analisis GC-MS



Grafik Analisis Instrumen GC-MS Ekstrak Cacing Tanah *Lumbricus rubellus*

Peak #	Area %	Nama Senyawa
1	0.04	BICYCLO[7.2.0]UNDEC-4-ENE, 4,11,11-TRIMETHYL-8-METHYLENE-, [1R-(1R*
2	0.17	UNDECANOIC ACID
3	0.06	Dodecanoic acid, methyl ester
4	0.61	Dodecanoic acid
5	4.47	Oxacyclotridecan-2-one
6	17.47	DODECANOIC ACID
7	0.03	6-OCTEN-1-OL, 3,7-DIMETHYL-
8	0.03	METHYL 11-(2,3-DIDEUTEROCYCLOPENTAN-1-YL)UNDECANOATE
9	1.22	TRIDECANOIC ACID
10	1.76	Docosanoic acid, 1,2,3-propanetriyl ester
11	1.17	TRIDECANOIC ACID
12	0.31	METHYL TETRADECADIENOATE
13	0.44	Methyl Z-11-tetradecenoate
14	0.09	Methyl tetradecanoate
15	0.24	9-OCTADECENOIC ACID (Z)-
16	22.15	Z-11-Pentadecenol
17	10.10	Tetradecanoic acid
18	0.01	8,11,14-EICOSATRIENOIC ACID, METHYL ESTER
19	0.52	Pentadecanoic acid
20	0.24	2H-1-BENZOPYRAN, 3,4,4A,5,6,8A-HEXAHYDRO-2,5,5,8A-TETRAMETHYL-, (2
21	0.09	1,2-Benzenedicarboxylic acid, bis(2-methylpropyl) ester
22	0.10	PENTADECANOIC ACID
23	0.11	10-Methyl-8-tetradecen-1-ol acetate
24	0.04	2-(2-METHYLPROPYLIDENE)CYCLOHEXANOL
25	0.04	CYCLOPROPANENONANOIC ACID, 2-[(2-BUTYLCYCLOPROPYL)METHYL]-,
26	0.06	HEXADECANOIC ACID, METHYL ESTER
27	0.04	l-(+)-Ascorbic acid 2,6-dihexadecanoate
28	0.30	ASPIDOSPERMIDIN-17-OL, 1-ACETYL-16-METHOXY-
29	2.19	n-Hexadecanoic acid
30	0.01	Heptanedioic acid, 3-methyl-, dimethyl ester
31	0.06	HEXADECANOIC ACID, ETHYL ESTER
32	0.05	14-PENTADECYNOIC ACID, METHYL ESTER
33	0.18	9,12-Octadecadienoic acid (Z,Z)-, methyl ester
34	0.14	METHYL (7E)-7-HEXADECENOATE #
35	0.02	9-Octadecenoic acid (Z)-, methyl ester

36	0.08	Octadecanoic acid, methyl ester
37	5.09	9,12-Octadecadienoic acid (Z,Z)-
38	4.03	Oleic Acid
39	4.59	9-OCTADECENOIC ACID (Z)-
40	4.29	Octadecanoic acid
41	0.26	(4Ar-(4aalpha,5beta,8beta))-5-ethyl-2,3,4a,5,8,8a-hexahydro-1,4-naphthalenedione
42	0.07	Isomenthone
43	0.14	5,8,11,14-Eicosatetraenoic acid, methyl ester, (all-Z)-
44	0.16	5,8,11,14-Eicosatetraenoic acid, methyl ester, (all-Z)-
45	0.10	9,12-Octadecadienoic acid (Z,Z)-
46	0.10	DOCOSANOIC ACID
47	0.54	8,11,14-EICOSATRIENOIC ACID, METHYL ESTER
48	0.48	Oleyl Alcohol
49	0.67	1H-Indene, 1-hexadecyl-2,3-dihydro-
50	0.19	Phenol, 2,2'-methylenebis[6-(1,1-dimethylethyl)-4-methyl-
51	0.03	2-(DIMETHYLAMINO)ETHYL 1-ADAMANTANECARBOXYLATE
52	0.02	2-AMINOETHANETHIOL HYDROGEN SULFATE (ESTER)
53	0.05	Cyclopentolate
54	0.07	1,2-BENZENEDICARBOXYLIC ACID
55	0.02	1,5-BENZOTHAZEPIN-4(5H)-ONE, 3-(ACETYLOXY)-5-[2-(DIMETHYLAMINO)
56	0.01	1,5-METHANO-8H-PYRIDO[1,2-A][1,5]DIAZOCIN-8-ONE, 1,2,3,4,5,6-HEXAHYD
57	0.05	TETRACOSANOIC ACID, TRIMETHYLSILYL ESTER
58	0.04	1-Chloro-1-n-octyloxy-1-silacyclopentane
59	0.09	2,6,10,14,18,22-Tetracosahexaene, 2,6,10,15,19,23-hexamethyl-, (all-E)-
60	0.07	17a-Allyl-3.beta.-methoxy-17a-aza-D-homoandrost-5-ene-17-one
61	0.64	CHOLESTA-4,6-DIEN-3-OL, BENZOATE, (3.BETA.)-
62	0.03	CHOLEST-5-EN-3-YL PALMITATE
63	0.14	CHOLESTA-5,7,24-TRIEN-3-OL, ACETATE, (3.BETA.)-
64	0.02	Dodecanoic acid, isooctyl ester
65	0.16	9(11)-Dehydroergosteryl benzoate
66	0.06	Ergosta-5,7,22-trien-3-ol, acetate, (3.beta.,22E)-
67	0.06	(22E,24R)-24-ETHYLCHOLESTA-5,7,9(11),22-TETRAEN-3B-OL
68	11.69	17-(1,5-DIMETHYL-HEXYL)-10,13-DIMETHYL-2,3,4,7,8,9,10,11,12,13,14,15,16,17 - TETRADECAHYDRO-1H-CYCLOPENTA[A]PHENANT
69	0.68	Ergosta-5,7-dien-3-ol, (3.beta.)-
70	0.14	CHOLESTA-3,5-DIEN-7-ONE
71	0.46	ERGOST-5-EN-3-OL, (3.BETA.,24R)-
72	0.07	STIGMASTA-5,22-DIEN-3-OL, (3.BETA.,22E)-
	100.00	



Grafik Analisis Instrumen GC-MS Ekstrak Kayu Manis *Cinnamomum burmannii*

Peak#	Area %	Nama senyawa
1	0.25	1,3-CYCLOHEXADIENE, 1-METHYL-4-(1-METHYLETHYL)-
2	2.68	3-ISOPROPYL-6-METHYLENE-1-CYCLOHEXENE
3	2.06	BICYCLO[3.1.0]HEXANE, 4-METHYLENE-1-(1-METHYLETHYL)-
4	0.29	Bornyl acetate
5	25.53	2-Propenal, 3-phenyl-
6	1.82	TRICYCLO[4.4.0.0(2,7)]DEC-3-ENE, 1,3-DIMETHYL-8-(1-METHYLETHYL)-, ST
7	0.26	BICYCLO[3.1.1]HEPT-2-ENE, 2,6-DIMETHYL-6-(4-METHYL-3-PENTENYL)-
8	0.29	BICYCLO[7.2.0]UNDEC-4-ENE, 4,11,11-TRIMETHYL-8-METHYLENE-, [1R-(1R*
9	0.41	6.ALPHA.-CADINA-4,9-DIENE, (-)-
10	2.65	Naphthalene, 1,2,4a,5,6,8a-hexahydro-4,7-dimethyl-1-(1-methylethyl)-, (1.alpha.,4a.alpha
11	1.88	NAPHTHALENE, 1,2,3,5,6,8A-HEXAHYDRO-4,7-DIMETHYL-1-(1-METHYLETH
12	0.79	DODECANOIC ACID
13	11.11	Dodecanoic acid
14	2.77	Tetradecanal
15	2.63	Cubenol
16	1.44	.tau.-Muurolol
17	1.49	9-OCTADECENOIC ACID (Z)-
18	2.00	2-TETRADECYLOXIRANE
19	1.10	Methyl tetradecanoate
20	8.40	Z,Z-8,10-Hexadecadien-1-ol
21	9.27	Tetradecanoic acid
22	0.69	Acetic acid, chloro-, decyl ester
23	1.12	01297107001 TETRANEURIN - A - DIOL
24	0.29	1,2-BENZENEDICARBOXYLIC ACID, BIS(2-METHYLPROPYL) ESTER
25	0.32	HEXADECANOIC ACID, METHYL ESTER
26	1.54	l-(+)-Ascorbic acid 2,6-dihexadecanoate

Lampiran 4. Dokumentasi Penelitian



Preparasai Sampel Uji GC-MS



Pengukuran Kadar Gula Darah Fase 1



Pengukuran Kadar Gula Darah Fase 1