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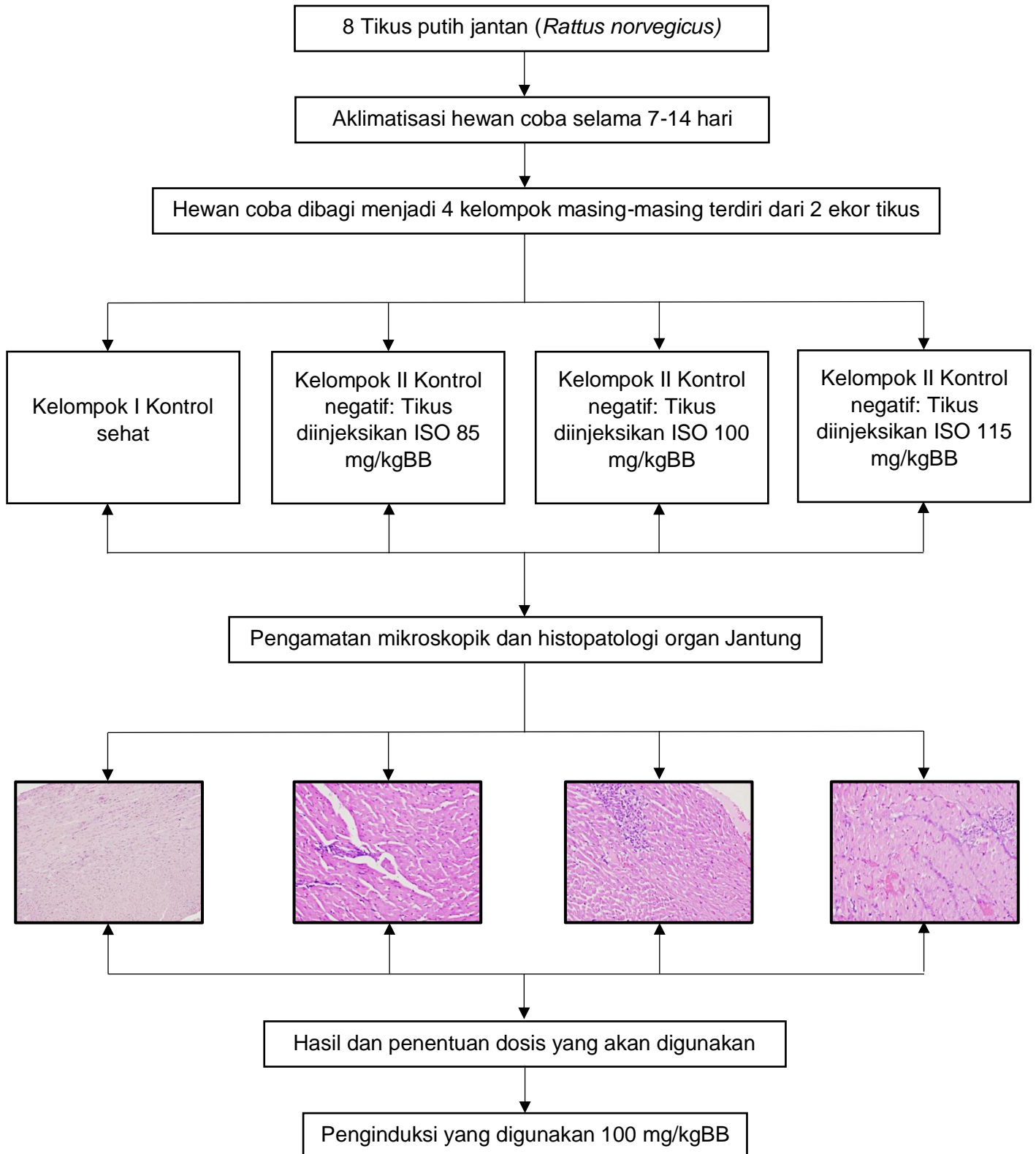
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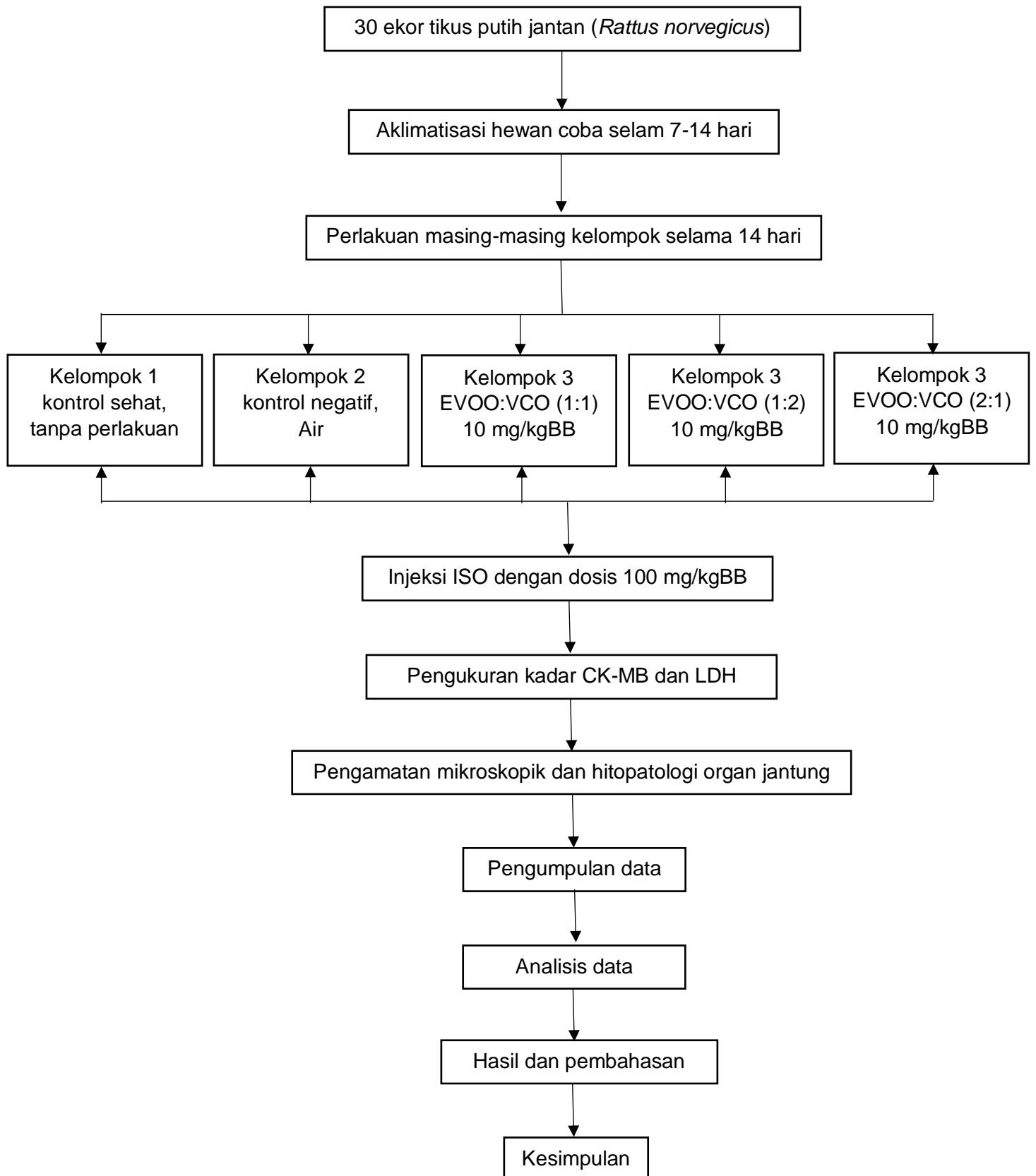
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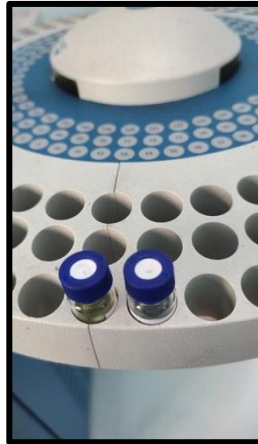
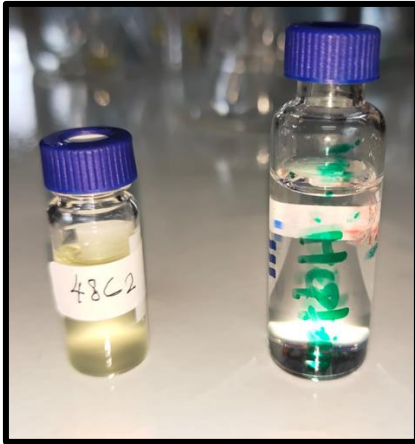
LAMPIRAN

Lampiran 1. Preliminary Study

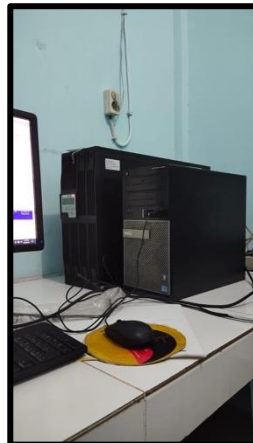


Lampiran 2. Skema Kerja

Lampiran 3. Proses GC-MS dari EVOO dan VCO



Gambar 13. Transesterifikasi **Gambar 14.** Proses injeksi sampel pada GC-MS



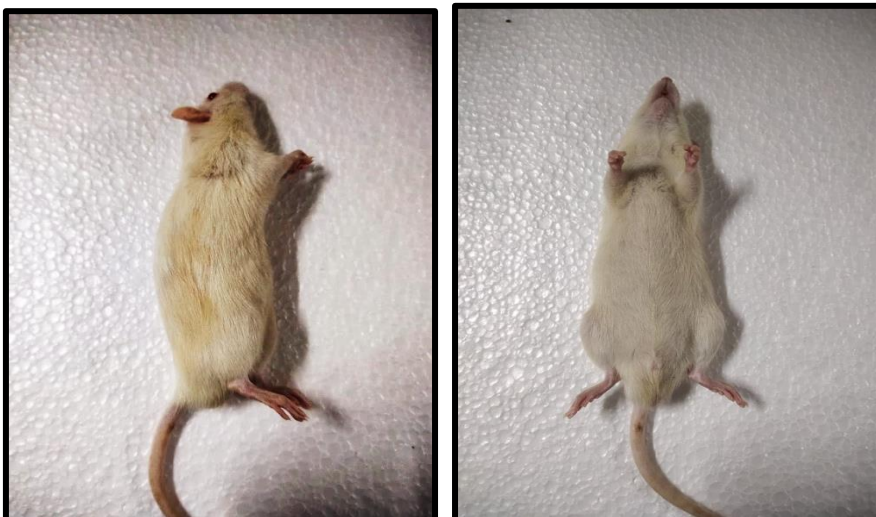
Gambar 15. Record data komponen senyawa kimia dari EVOO dan VCO)

Lampiran 4. Larutan ISO 100 mg/kgBB



Gambar 16. Isoproterenol 100 mg/kgBB yang telah dilarutkan dengan NaCl 0,9%)

Lampiran 5. Tikus



Gambar 17. Tikus Putih Jantan "*Rattus norvegicus*"

Lampiran 6. Pengambilan Organ Jantung Tikus



Gambar 18. Tikus yang telah di bedah



Gambar 19. Organ jantung tikus

Lampiran 7. Proses Histopatologi



Gambar 20. Pembuatan parafin blok



Gambar 21. Pemotongan slide/ preparat histopatologi



Gambar 22. Pewarnaan Hematoksilin & eosin

Lampiran 8. Data Penelitian dan analisis data CK-MB dan LDH

Analisis Data CK-MB

Normal	Isoproterenol	EVOO:VCO (1:1)	EVOO:VCO (1:2)	EVOO:VCO (2:1)
38.16	563	29.42	12.08	24.24
30.32	372.26	31.8	25.34	12.6
31.8	547.88	13.78	19.42	10.76
18.08	187.7	71.12	32.82	25.8

Minimum	18.08	187.7	13.78	12.08	10.76
Maximum	38.16	563.0	71.12	32.82	25.80
Range	20.08	375.3	57.34	20.74	15.04
Mean	29.59	417.7	36.53	22.42	18.35
Std. Deviation	8.393	176.1	24.41	8.805	7.765
Std. Error of Mean	4.197	88.05	12.20	4.403	3.882

Test for normal distribution					
Shapiro-Wilk test					
W	0.9336	0.8863	0.8866	0.9983	0.8328
P value	0.6155	0.3664	0.3676	0.9948	0.1751
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns	ns

ANOVA summary	
F	19.25
P value	<0.0001
P value summary	****
Significant diff. among means (P < 0.05)?	Yes
R squared	0.8370
ANOVA table	SS DF MS F (DFn, DFd) P value
Treatment (between columns)	489963 4 122491 F (4, 15) = 19.25 P<0.0001
Residual (within columns)	95435 15 6362
Total	585399 19

Tukey's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Below threshold?	Summary	Adjusted P Value	
normal vs. isoproterenol	-388.1	-562.3 to -214.0	Yes	****	<0.0001	A-B
normal vs. EVOO:VCO (1:1)	-6.940	-181.1 to 167.2	No	ns	>0.9999	A-C
normal vs. EVOO:VCO (1:2)	7.175	-167.0 to 181.3	No	ns	>0.9999	A-D
normal vs. EVOO:VCO (2:1)	11.24	-162.9 to 185.4	No	ns	0.9996	A-E
isoproterenol vs. EVOO:VCO (1:1)	381.2	207.0 to 555.3	Yes	****	<0.0001	B-C
isoproterenol vs. EVOO:VCO (1:2)	395.3	221.1 to 569.5	Yes	****	<0.0001	B-D
isoproterenol vs. EVOO:VCO (2:1)	399.4	225.2 to 573.5	Yes	****	<0.0001	B-E
EVOO:VCO (1:1) vs. EVOO:VCO (1:2)	14.12	-160.1 to 188.3	No	ns	0.9990	C-D
EVOO:VCO (1:1) vs. EVOO:VCO (2:1)	18.18	-156.0 to 192.3	No	ns	0.9974	C-E
EVOO:VCO (1:2) vs. EVOO:VCO (2:1)	4.065	-170.1 to 178.2	No	ns	>0.9999	D-E

Analisis Data LDH

Normal	Isoproterenol	EVOO:VCO (1:1)	EVOO:VCO (1:2)	EVOO:VCO (2:1)
101.8	313	162.8	102.2	162.4
131.4	211.6	126.6	99.42	189.5
126.9	298.6	154.2	114.7	147.6
73.81	209.6	178.9	120.4	206.2

Minimum	73.81	209.6	126.6	99.42	147.6
Maximum	131.4	313.0	178.9	120.4	206.2
Range	57.59	103.4	52.30	20.98	58.60
Mean	108.5	258.2	155.6	109.2	176.4
Std. Deviation	26.53	55.28	21.89	10.01	26.36
Std. Error of Mean	13.26	27.64	10.95	5.003	13.18
Shapiro-Wilk test					
W	0.9068	0.7979	0.9716	0.9063	0.9618
P value	0.4656	0.0986	0.8513	0.4628	0.7900
Passed normality test (alpha=0.05)?	Yes	Yes	Yes	Yes	Yes
P value summary	ns	ns	ns	ns	ns

ANOVA summary	
F	15.05
P value	<0.0001
P value summary	****
Significant diff. among means (P < 0.05)?	Yes
R squared	0.8006

ANOVA table	SS	DF	MS	F (DFn, DFd)	P value
Treatment (between columns)	60628	4	15157	F (4, 15) = 15.05	P<0.0001
Residual (within columns)	15103	15	1007		
Total	75731	19			

Tukey's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Below threshold?	Summary	Adjusted P Value	
normal vs. isoproterenol	-149.7	-219.0 to -80.44	Yes	****	<0.0001	A-B
normal vs. EVOO:VCO (1:1)	-47.15	-116.4 to 22.14	No	ns	0.2695	A-C
normal vs. EVOO:VCO (1:2)	-0.7025	-69.99 to 68.58	No	ns	>0.9999	A-D
normal vs. EVOO:VCO (2:1)	-67.95	-137.2 to 1.337	No	ns	0.0559	A-E
isoproterenol vs. EVOO:VCO (1:1)	102.6	33.29 to 171.9	Yes	**	0.0029	B-C
isoproterenol vs. EVOO:VCO (1:2)	149.0	79.74 to 218.3	Yes	****	<0.0001	B-D
isoproterenol vs. EVOO:VCO (2:1)	81.78	12.49 to 151.1	Yes	*	0.0173	B-E
EVOO:VCO (1:1) vs. EVOO:VCO (1:2)	46.45	-22.84 to 115.7	No	ns	0.2822	C-D
EVOO:VCO (1:1) vs. EVOO:VCO (2:1)	-20.80	-90.08 to 48.48	No	ns	0.8820	C-E
EVOO:VCO (1:2) vs. EVOO:VCO (2:1)	-67.25	-136.5 to 2.040	No	ns	0.0592	D-E

Lampiran 9. Data Penelitian dan analisis data Histologi Jaringan Jantung

Descriptive statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Analisis histologi perdarahan	15	.5333	.51640	.00	1.00
Kelompok perlakuan	15	3.0000	1.46385	1.00	5.00

Kruskal-Wallis Test

Ranks

	Kelompok perlakuan	N	Mean Rank
Analisis histologi perdarahan	Normal	3	4.00
	ISO	3	11.50
	1:1	3	11.50
	1:2	3	9.00
	2:1	3	4.00
	Total	15	

Test Statistics^{a,b}

Analisis histologi perdarahan	
Kruskal-Wallis H	11.500
df	4
Asymp. Sig.	.021

- a. Kruskal Wallis Test
b. Grouping Variable: kelompok perlakuan

Mann-Whitney Test

Ranks

	Kelompok perlakuan	N	Mean Rank	Sum of Ranks
Analisis histologi perdarahan	NORMAL	3	2.00	6.00
	ISO	3	5.00	15.00
	Total	6		

Test statistics^a

Analisis histologi perdarahan	
Mann-whitney u	.000
Wilcoxon w	6.000
Z	-2.236
Asymp. Sig. (2-tailed)	.025
Exact sig. [2*(1-tailed sig.)]	.100 ^b

- a Grouping variable: kelompok perlakuan
b Not corrected for ties.

Mann-Whitney Test

Ranks

	KELOMPOK PERLAKUAN	N	Mean Rank	Sum of Ranks
ANALISIS HISTOLOGI PERDARAHAN	ISO	3	3.50	10.50
	1:1	3	3.50	10.50
	Total	6		

Test Statistics^a

	Analisis histologi perdarahan
Mann-Whitney U	4.500
Wilcoxon W	10.500
Z	.000
Asymp. Sig. (2-tailed)	1.000
Exact Sig. [2*(1-tailed Sig.)]	1.000 ^b

a. Grouping Variable: kelompok perlakuan

b. Not corrected for ties.

Mann-whitney test**Ranks**

	Kelompok perlakuan	N	Mean rank	Sum of ranks
Analisis histologi perdarahan	Iso	3	4.00	12.00
	1:2	3	3.00	9.00
	Total	6		

Test statistics^a

	Analisis histologi perdarahan
Mann-whitney u	3.000
Wilcoxon w	9.000
Z	-1.000
Asymp. Sig. (2-tailed)	.317
Exact sig. [2*(1-tailed sig.)]	.700 ^b

a. Grouping variable: kelompok perlakuan

b. Not corrected for ties.

Mann-Whitney Test**Ranks**

	Kelompok perlakuan	N	Mean Rank	Sum of Ranks
Analisis histologi perdarahan	ISO	3	5.00	15.00
	2:1	3	2.00	6.00
	Total	6		

Test Statistics^a

	Analisis histologi perdarahan
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.236
Asymp. Sig. (2-tailed)	.025
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: kelompok perlakuan

b. Not corrected for ties.

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Analisis nekrosis	15	1.2667	.88372	.00	3.00
Kelompok perlakuan	15	3.0000	1.46385	1.00	5.00

Kruskal-Wallis Test

Ranks

	Kelompok perlakuan	N	Mean Rank
Analisis nekrosis	NORMAL	3	2.00
	ISO	3	13.00
	1:1	3	10.17
	1:2	3	8.33
	2:1	3	6.50
	Total	15	

Test Statistics^{a,b}

	Analisis nekrosis
Kruskal-Wallis H	11.411
df	4
Asymp. Sig.	.022

a. Kruskal Wallis Test

b. Grouping Variable: kelompok perlakuan

Mann-Whitney Test

Ranks

	Kelompok perlakuan	N	Mean Rank	Sum of Ranks
Analisis nekrosis	NORMAL	3	2.00	6.00
	ISO	3	5.00	15.00
	Total	6		

Test Statistics^a

	Analisis nekrosis
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.121
Asymp. Sig. (2-tailed)	.034
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

a. Grouping Variable: kelompok perlakuan

b. Not corrected for ties.

Mann-Whitney Test

Ranks

	Kelompok perlakuan	N	Mean Rank	Sum of Ranks
Analisis nekrosis	Iso	3	4.33	13.00
	1:1	3	2.67	8.00
	Total	6		

Test Statistics^a

	Analisis nekrosis
Mann-Whitney U	2.000
Wilcoxon W	8.000
Z	-1.291
Asymp. Sig. (2-tailed)	.197
Exact Sig. [2*(1-tailed Sig.)]	.400 ^b

a. Grouping Variable: kelompok perlakuan

b. Not corrected for ties.

Mann-Whitney Test

Ranks

	Kelompok perlakuan	N	Mean Rank	Sum of Ranks
Analisis nekrosis	ISO	3	4.67	14.00
	1:2	3	2.33	7.00
	Total	6		

Test Statistics^a

	Analisis nekrosis
Mann-Whitney U	1.000
Wilcoxon W	7.000
Z	-1.650
Asymp. Sig. (2-tailed)	.099
Exact Sig. [2*(1-tailed Sig.)]	.200 ^b

- a. Grouping Variable: kelompok perlakuan
b. Not corrected for ties.

Mann-Whitney Test

Ranks

	Kelompok perlakuan	N	Mean Rank	Sum of Ranks
Analisis nekrosis	ISO	3	5.00	15.00
	2:1	3	2.00	6.00
	Total	6		

Test Statistics^a

	Analisis nekrosis
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.121
Asymp. Sig. (2-tailed)	.034
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

- a. Grouping Variable: kelompok perlakuan
b. Not corrected for ties.

Kruskal-Wallis Test

Ranks

	Kelompok perlakuan	N	Mean Rank
Analisis inflamasi	NORMAL	3	2.50
	ISO	3	13.00
	1:1	3	8.67
	1:2	3	8.67
	2:1	3	7.17
	Total	15	

Test Statistics^{a,b}

	Analisis inflamasi
Kruskal-Wallis H	9.361
df	4
Asymp. Sig.	.053

Mann-Whitney Test

Ranks

	Kelompok perlakuan	N	Mean Rank	Sum of Ranks
Analisis inflamasi	ISO	3	4.67	14.00
	2:1	3	2.33	7.00
	Total	6		

Test Statistics^a

	Analisis inflamasi
Mann-Whitney U	1.000
Wilcoxon W	7.000
Z	-1.623
Asymp. Sig. (2-tailed)	.105
Exact Sig. [2*(1-tailed Sig.)]	.200 ^b

- a. Grouping Variable: kelompok perlakuan
b. Not corrected for ties.

Mann-Whitney Test

Ranks

	Kelompok perlakuan	N	Mean Rank	Sum of Ranks
Analisis inflamasi	ISO	3	4.67	14.00
	1:2	3	2.33	7.00
	Total	6		

Test Statistics^a

	Analisis inflamasi
Mann-Whitney U	1.000
Wilcoxon W	7.000
Z	-1.650
Asymp. Sig. (2-tailed)	.099
Exact Sig. [2*(1-tailed Sig.)]	.200 ^b

- a. Grouping Variable: kelompok perlakuan
b. Not corrected for ties.

Mann-Whitney Test

Ranks

	Kelompok perlakuan	N	Mean Rank	Sum of Ranks
Analisis inflamasi	ISO	3	4.67	14.00
	1:1	3	2.33	7.00
	Total	6		

Test Statistics^a

	Analisis inflamasi
Mann-Whitney U	1.000
Wilcoxon W	7.000
Z	-1.650
Asymp. Sig. (2-tailed)	.099
Exact Sig. [2*(1-tailed Sig.)]	.200 ^b

- a. Grouping Variable: kelompok perlakuan
b. Not corrected for ties.

Mann-Whitney Test

Ranks

	Kelompok perlakuan	N	Mean Rank	Sum of Ranks
Analisis inflamasi	NORMAL	3	2.00	6.00
	ISO	3	5.00	15.00
	Total	6		

Test Statistics^a

	Analisis inflamasi
Mann-Whitney U	.000
Wilcoxon W	6.000
Z	-2.121
Asymp. Sig. (2-tailed)	.034
Exact Sig. [2*(1-tailed Sig.)]	.100 ^b

- a. Grouping Variable: kelompok perlakuan
 b. Not corrected for ties.

Lampiran 10. Izin Etik



REKOMENDASI PERSETUJUAN ETIK

Nomor : 671/UN4.6.4.5.31/ PP36/ 2022

Tanggal: 2 Nopember 2022

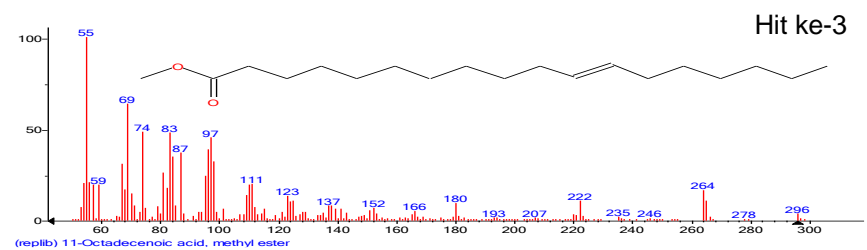
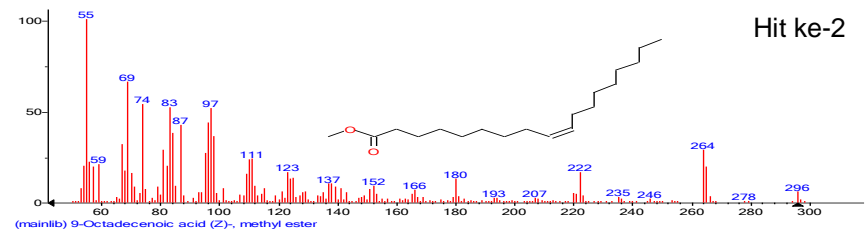
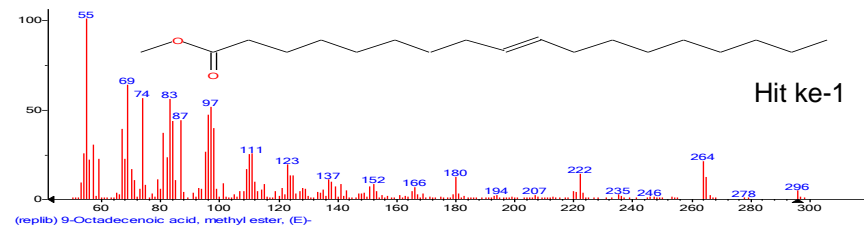
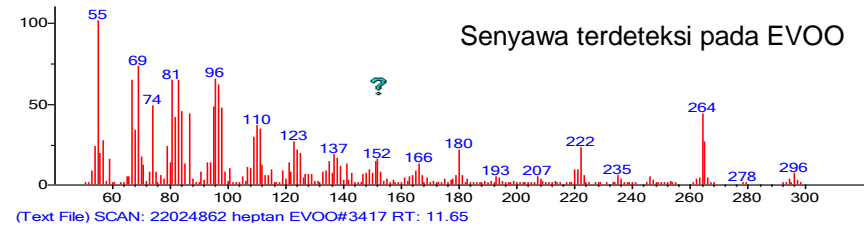
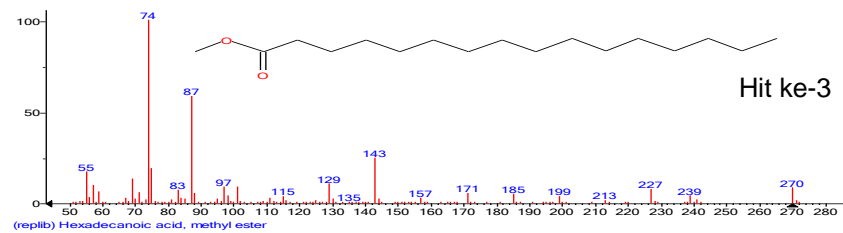
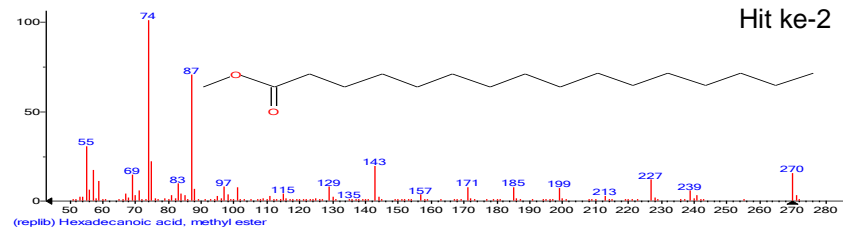
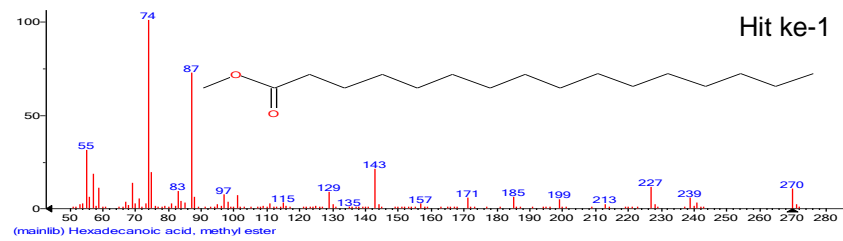
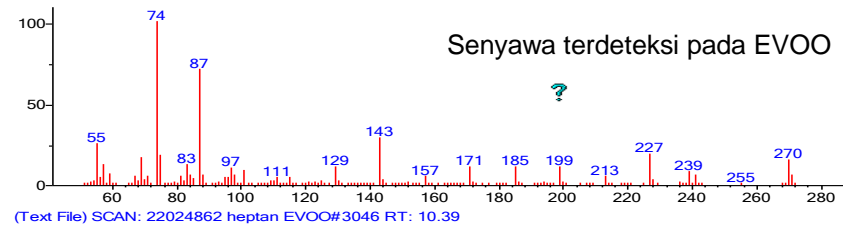
Dengan ini Menyatakan bahwa Protokol dan Dokumen yang Berhubungan Dengan Protokol berikut ini telah mendapatkan Persetujuan Etik :

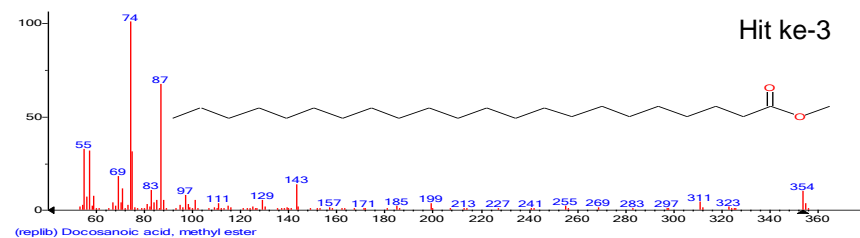
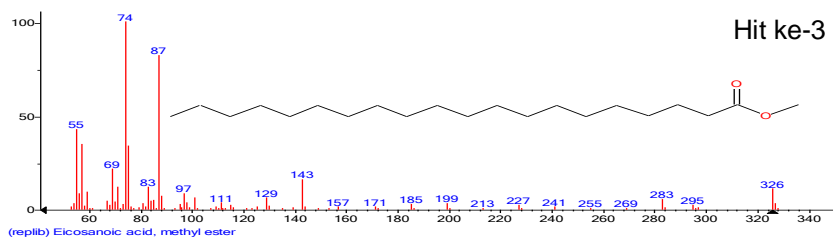
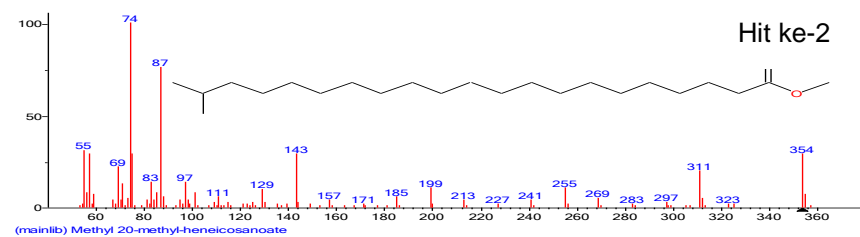
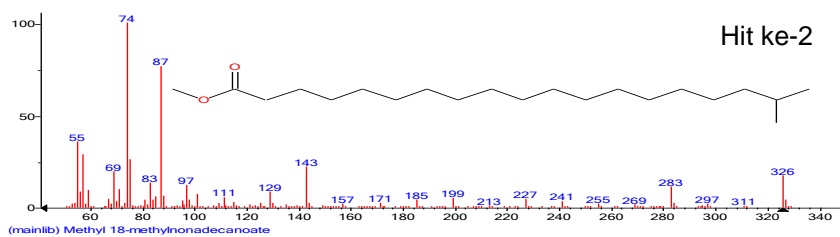
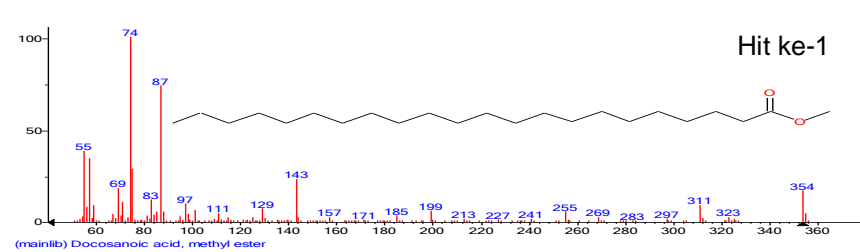
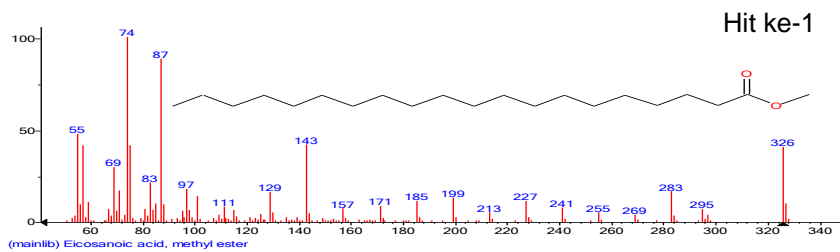
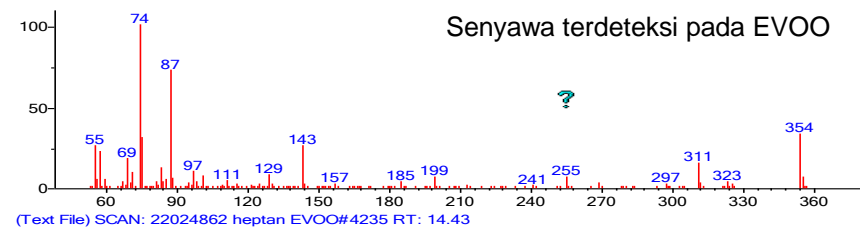
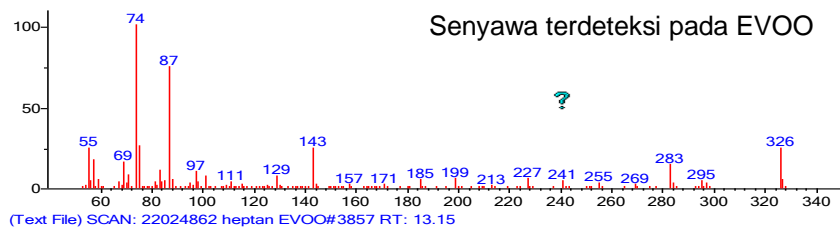
No Protokol	UH22090521	No Sponsor Protokol	
Peneliti Utama	apt. Syaadatun Nadiah, S.Farm	Sponsor	
Judul Peneliti	Efek Kardioprotektif Kombinasi Extra Virgin Olive Oil (EVOO) dan Virgin Coconut Oil (VCO) dalam mencegah Infark Miokardium pada Tikus yang Diinduksi Isoproterenol.		
No Versi Protokol	1	Tanggal Versi	13 September 2022
No Versi PSP		Tanggal Versi	
Tempat Penelitian	Laboratorium Fakultas Farmasi Universitas Hasanuddin Makassar		
Jenis Review	<input type="checkbox"/> Exempted <input checked="" type="checkbox"/> Expedited <input type="checkbox"/> Fullboard Tanggal	Masa Berlaku 2 Nopember 2022 sampai 2 Nopember 2023	Frekuensi review lanjutan
Ketua KEP Universitas Hasanuddin	Nama Prof.Dr.dr. Suryani As'ad, M.Sc.,Sp.GK (K)	Tanda tangan	
Sekretaris KEP Universitas Hasanuddin	Nama dr. Agussalim Bukhari, M.Med.,Ph.D.,Sp.GK (K)	Tanda tangan	

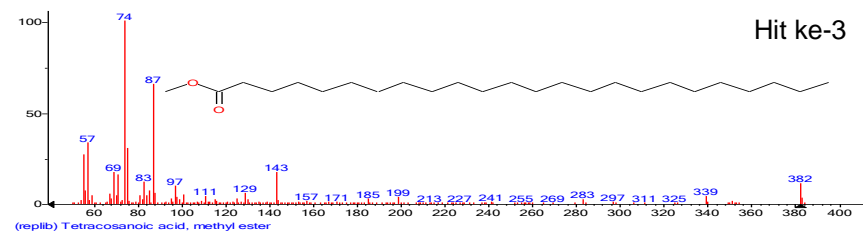
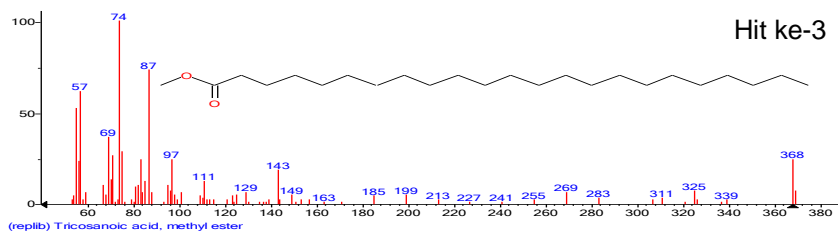
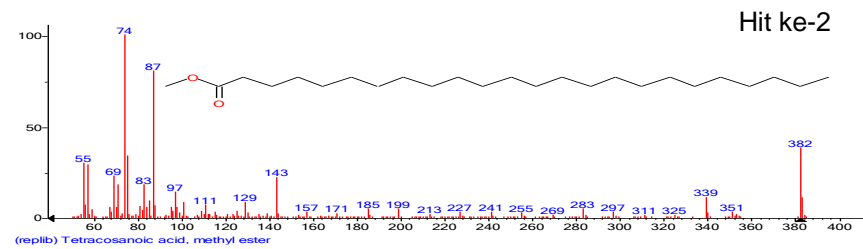
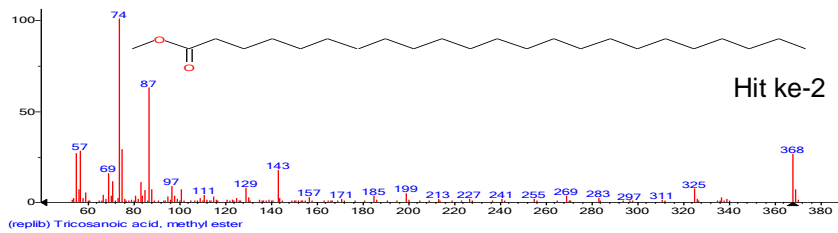
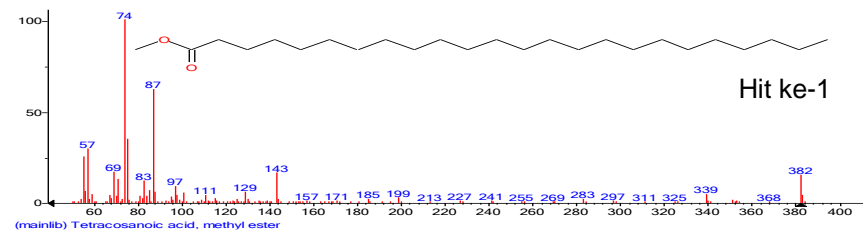
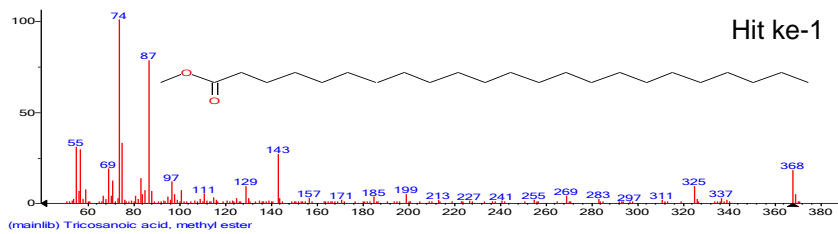
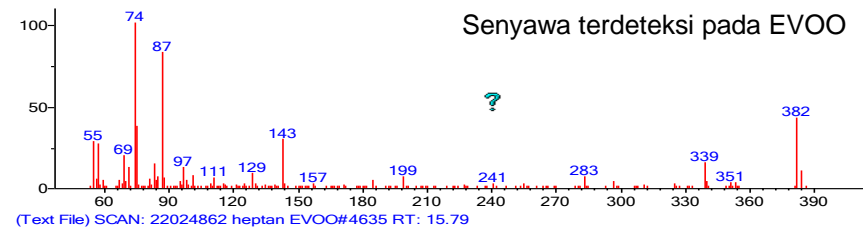
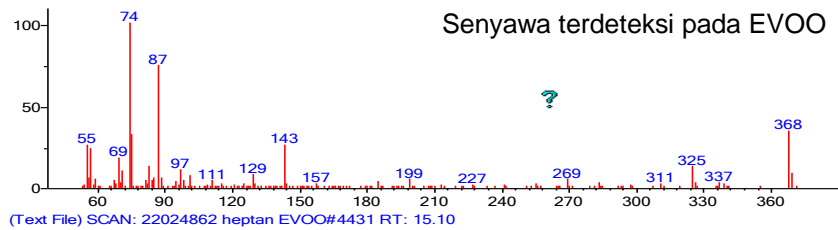
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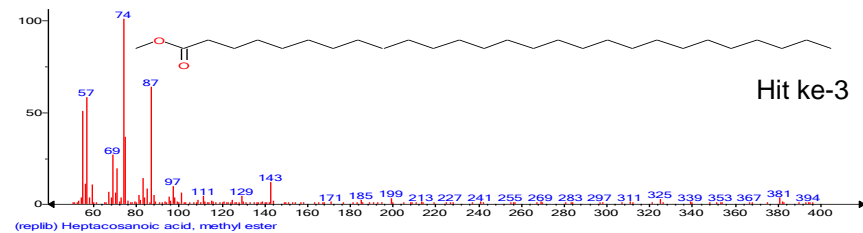
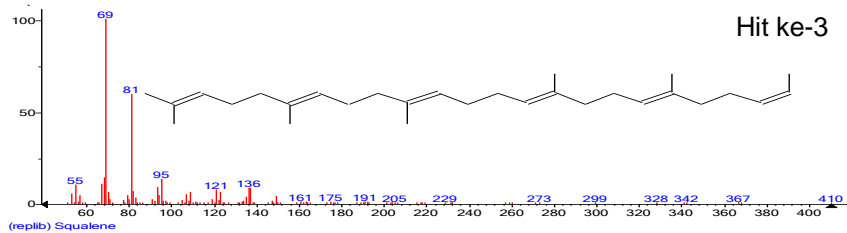
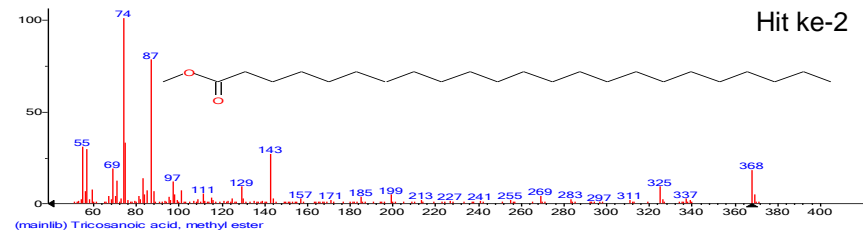
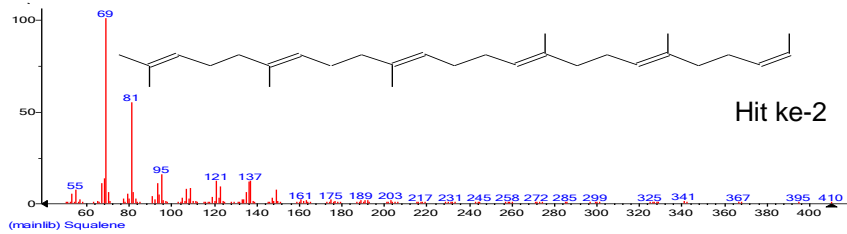
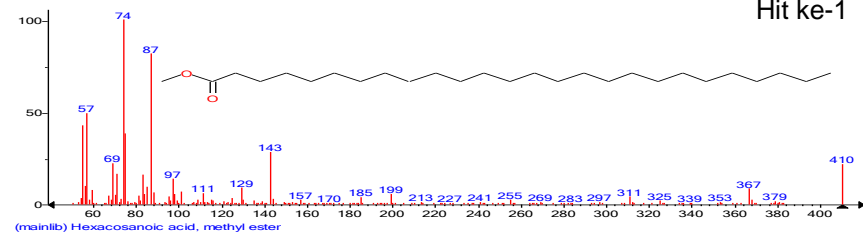
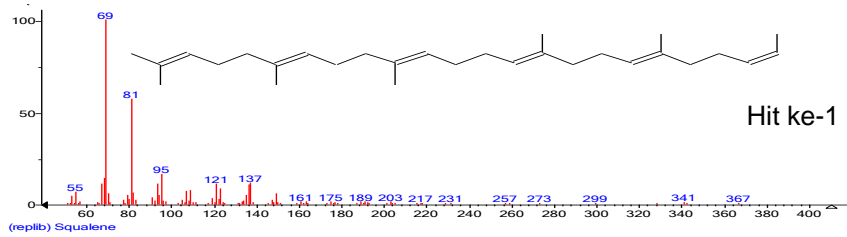
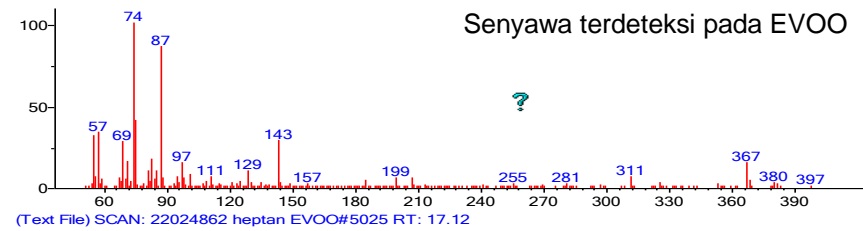
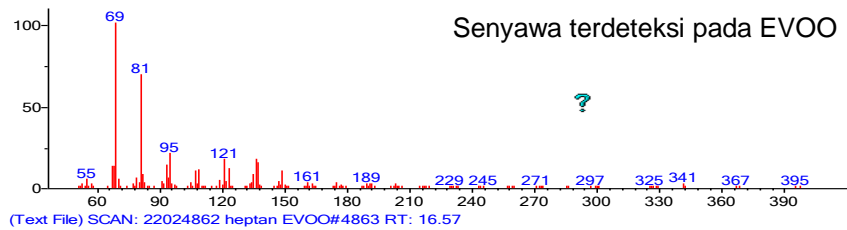
- Menyerahkan Amandemen Protokol untuk persetujuan sebelum di implementasikan
- Menyerahkan Laporan SAE ke Komisi Etik dalam 24 Jam dan dilengkapi dalam 7 hari dan Laporan SUSAR dalam 72 Jam setelah Peneliti Utama menerima laporan
- Menyerahkan Laporan Kemajuan (progress report) setiap 6 bulan untuk penelitian resiko tinggi dan setiap setahun untuk penelitian resiko rendah
- Menyerahkan laporan akhir setelah Penelitian berakhir
- Melaporkan penyimpangan dari prokol yang disetujui (protocol deviation / violation)
- Mematuhi semua peraturan yang ditentukan

Lampiran 11. Fragmentasi GC-MS (EVOO)

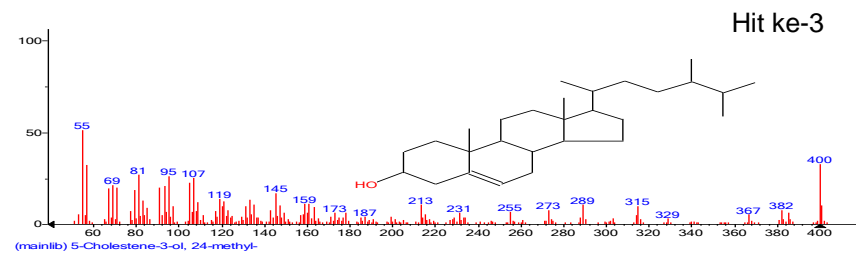
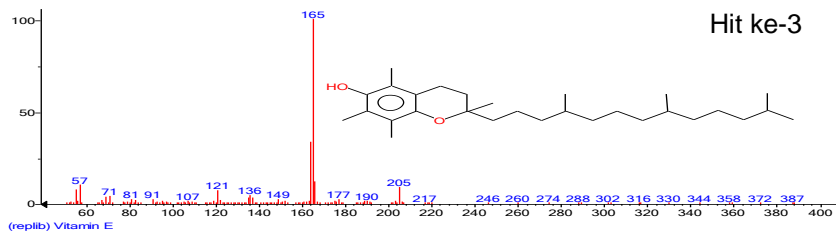
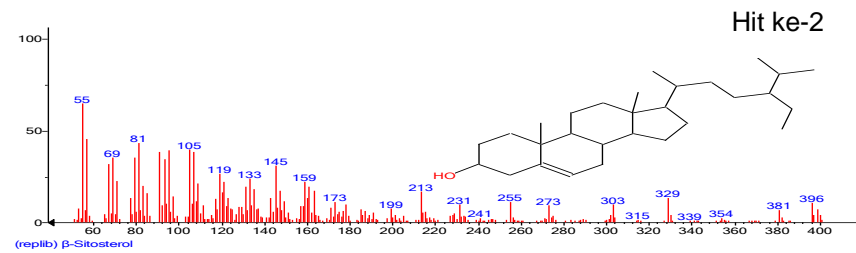
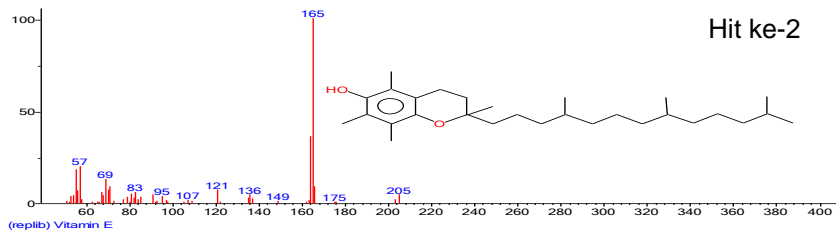
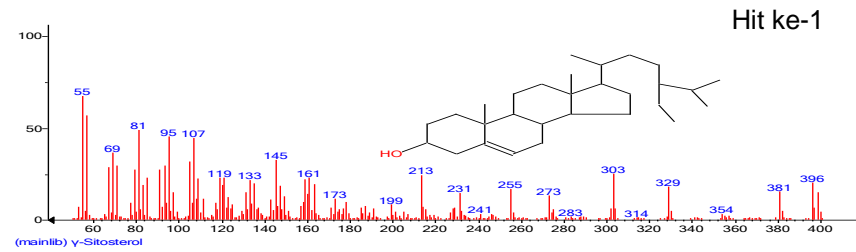
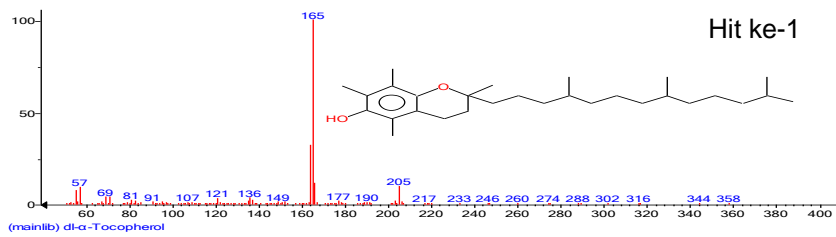
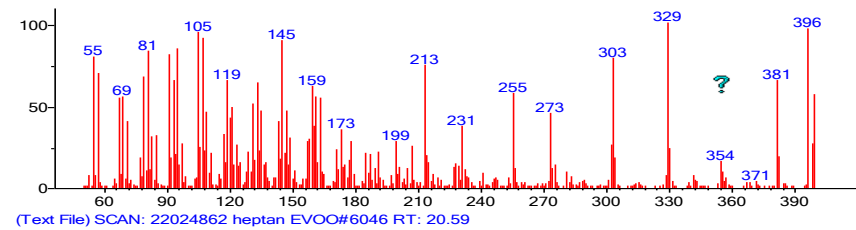
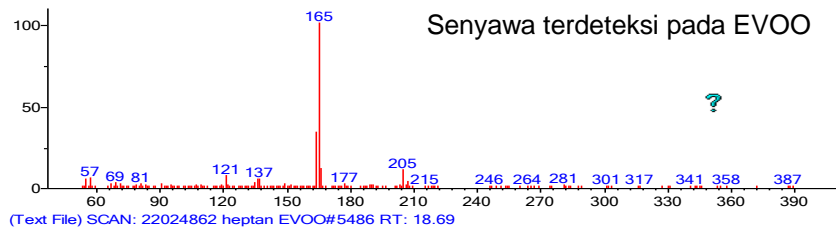








Senyawa terdeteksi pada EVOO



Lampiran 12. Fragmentasi GC-MS (VCO)

