

Lampiran 1. Surat Keterangan Menggunakan Ekstrak dari Penelitian Sebelumnya

SURAT KETERANGAN

Dengan hormat,

Saya yang bertanda tangan di bawah ini :

Nama : Sri Susilowati, S.Si., M.Si., Apt.

NPP : 07.01.1.0032

Selaku pembimbing skripsi dari mahasiswa :

Nama : Nur Rosid Ismunandar

NIM : 125010908

Judul Skripsi : Efek Hepatoprotektik Ekstrak Etanol Heba Alfalfa (*Medicago sativa* L.) Pada Mencit Yang Diinduksi Doksorubisin.

Menyatakan bahwa tanaman alfalfa (*Medicago sativa* L.) yang digunakan dalam penelitian tersebut sama dengan tanaman yang digunakan oleh Amirudin (125010872) dalam penelitian lain.

Dengan surat pernyataan ini dibuat dengan sebenar-benarnya dan dapat digunakan sebagaimana mestinya.

Hormat saya,



Sri Susilowati, S.Si., M.Si., Apt

NPP.07.01.1.0032

Lampiran 2. Surat Keterangan Penelitian di Laboratorium Biologi Universitas Negeri Semarang



KEMENTERIAN RISET, TEKNOLOGI DAN PENDIDIKAN TINGGI
UNIVERSITAS NEGERI SEMARANG ·
FAKULTAS MATEMATIKA DAN ILMU PENGETAHUAN ALAM
LABORATORIUM JURUSAN BIOLOGI
Gedung D 11 Kampus Sekaran Gunungpati Semarang
Website : <http://biologi.unnes.ac.id>

SURAT KETERANGAN

No **0147** /UN. 37.1.4.5./PT/2016

Yang bertanda tangan di bawah ini, Ketua Jurusan Biologi FMIPA Universitas Negeri Semarang menerangkan bahwa :

Nama : Nur Rosid Ismunandar
Instansi : Fakultas Farmasi Universitas Wahid Hasyim Semarang
NIM : 125010908
Judul : Efek Hepatoprotektif Ekstrak Etanol Herba Alfalfa (*Medicago sativa*) pada Mencit yang Diinduksi Doksorubisin

telah melakukan terminasi penelitian di Laboratorium Jurusan Biologi FMIPA Universitas Negeri Semarang pada bulan Agustus 2016

Demikian Surat Keterangan ini kami buat untuk dapat digunakan sebagaimana perlunya.

Semarang, 25 Agustus 2016

Mengetahui
Ketua Jurusan Biologi FMIPA UNNES


Dra. Endah Peniati, M.Si.
NIP. 196511161991032001

Kepala Laboratorium


Dr. Ning Setiati, M.Si.
NIP. 195903101987032001

Lampiran 3. Data Pengukuran Kadar SGOT dan SGPT



PEMERINTAH PROVINSI JAWA TENGAH
DINAS KESEHATAN
BALAI LABORATORIUM KESEHATAN

Alamat : Jalan Soekarno Hatta Nomor :185 Semarang 50196 Telepon : (024) 6710662 Faksimili : (024) 6715241

Status Akreditasi Penuh Versi Komite Akreditasi Laboratorium Kesehatan Nasional No.HK.03.05/V/1015/2009 Tanggal 25 Maret 2009

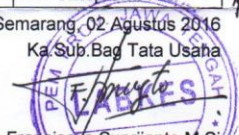
Hasil Pemeriksaan Laboratorium

Nomer RM	009183	Umur	22th 6bl 22hr
Reg. Kunjungan	KRM.16/08.00046	Jenis Kelamin	Laki-laki
Nama	Nur Rosid, Sdr	Tgl. Periksa	2 Aug 2016
Alamat	Jl. Menoreh Tengah VIII	Dokter Perujuk	

Pemeriksaan	Hasil	Satuan	Metode Pemeriksaan
Non Paket			
SGOT	Y : 140,9	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGPT	99,2	U/L	IFCC Without Pyridoxal Phosphate 37oC
Rekam Medis			
SGOT	X : 118,7	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGPT	57,2	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGOT	W : 59,3	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGPT	30,5	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGOT	V : 490,0	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGPT	199,7	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGOT	U : 253,4	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGPT	123,1	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGOT	T : 164,6	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGPT	90,3	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGOT	S : 285,8	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGPT	129,6	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGOT	R : 441,6	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGPT	202,1	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGOT	Q : 107,8	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGPT	62,8	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGOT	P : 184,5	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGPT	91,8	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGOT	O : 400,6	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGPT	172,4	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGOT	N : 112,7	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGPT	51,1	U/L	IFCC Without Pyridoxal Phosphate 37oC

Lampiran 3. Lanjutan...

No. Paket			
SGOT	M : 81,6	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGPT	31,3	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGOT	L : 516,3	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGPT	180,0	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGOT	K : 291,0	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGPT	122,9	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGOT	J : 291,0	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGPT	116,8	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGOT	I : 146,3	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGPT	77,7	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGOT	H : 171,2	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGPT	88,9	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGOT	G : 138,5	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGPT	50,1	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGOT	F : 264,1	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGPT	121,1	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGOT	E : 88,8	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGPT	36,9	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGOT	D : 149,2	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGPT	73,1	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGOT	C : 543,8	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGPT	208,5	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGOT	B : 83,5	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGPT	39,3	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGOT	A : 74,5	U/L	IFCC Without Pyridoxal Phosphate 37oC
SGPT	47,4	U/L	IFCC Without Pyridoxal Phosphate 37oC

Semarang, 02 Agustus 2016
 Ka. Sub. Bag. Tata Usaha

 Drs. Francisus Suprijanto, M.Si.
 NIP. 19640401 199303 1 007

Lampiran 3. Lanjutan...

KETERANGAN

KELOMPOK	No. Mencit	Kode	Kadar SGOT	Kadar SGPT
Kontrol Normal	1	A	74,5	47,4
Kontrol Normal	2	B	83,5	39,3
Kontrol Normal	3	E	88,8	36,9
Kontrol Normal	4	M	81,6	31,3
Kontrol Normal	5	W	59,3	30,5
Kontrol Hepatotoksik	1	C	543,8	208,5
Kontrol Hepatotoksik	2	L	516,3	180
Kontrol Hepatotoksik	3	O	400,6	172,4
Kontrol Hepatotoksik	4	R	441,6	202,1
Kontrol Hepatotoksik	5	V	490	199,7
Dosis 250 mg/kgBB	1	F	264,1	121,1
Dosis 250 mg/kgBB	2	J	291	116,8
Dosis 250 mg/kgBB	3	K	291	122,9
Dosis 250 mg/kgBB	4	S	285,8	129,6
Dosis 250 mg/kgBB	5	U	253,4	123,1
Dosis 500 mg/kgBB	1	H	171,2	88,9
Dosis 500 mg/kgBB	2	I	146,3	77,7
Dosis 500 mg/kgBB	3	P	184,5	91,8
Dosis 500 mg/kgBB	4	T	164,6	90,3
Dosis 500 mg/kgBB	5	Y	140,9	99,2
Dosis 1.000 mg/kgBB	1	D	149,2	73,1
Dosis 1.000 mg/kgBB	2	G	138,5	50,1
Dosis 1.000 mg/kgBB	3	N	112,7	51,1
Dosis 1.000 mg/kgBB	4	Q	107,8	62,8
Dosis 1.000 mg/kgBB	5	X	118,7	57,2

Lampiran 4. Hasil Uji Homogenitas Varian dan Normalitas Data Kadar SGPT

1. Hasil Uji Homogenitas Varian 2 Kelompok

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Sgpt	Based on Mean	7,715	1	8	,024
	Based on Median	1,470	1	8	,260
	Based on Median and with adjusted df	1,470	1	4,941	,280
	Based on trimmed mean	7,333	1	8	,027

2. Hasil Uji Normalitas 2 Kelompok

One-Sample Kolmogorov-Smirnov Test

		perlakuan	Sgpt
N		10	10
Normal Parameters ^{a,b}	Mean	1,5000	114,8100
	Std. Deviation	,52705	82,70963
Most Extreme Differences	Absolute	,329	,292
	Positive	,329	,292
	Negative	-,329	-,257
Test Statistic		,329	,292
Asymp. Sig. (2-tailed)		,003 ^c	,015 ^c

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

Lampiran 4. Lanjutan...

3. Hasil Uji Homogenitas Varian 5 Kelompok

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Sgpt	Based on Mean	3,627	4	20	,022
	Based on Median	1,219	4	20	,334
	Based on Median and with adjusted df	1,219	4	9,833	,363
	Based on trimmed mean	3,476	4	20	,026

4. Hasil Uji Normalitas 5 kelompok

One-Sample Kolmogorov-Smirnov Test

		Kontrol Hepatotoksik	Kontrol Normal	Dosis 250	Dosis 500	Dosis 1000
N		5	5	5	5	5
Normal Parameters ^{a,b}	Mean	37,0800	192,5400	122,7000	89,5800	58,8600
	Std. Deviation	6,85872	15,49397	4,61465	7,73932	9,46060
Most Extreme Differences	Absolute	,200	,278	,265	,265	,194
	Positive	,200	,191	,265	,187	,194
	Negative	-,169	-,278	-,164	-,265	-,177
Test Statistic		,200	,278	,265	,265	,194
Asymp. Sig. (2-tailed)		,200 ^{c,d}	,200 ^{c,d}	,200 ^{c,d}	,200 ^{c,d}	,200 ^{c,d}

- Test distribution is Normal.
- Calculated from data.
- Lilliefors Significance Correction.
- This is a lower bound of the true significance.

Lampiran 5. Hasil Uji Kruskal-Wallis Data Kadar SGPT

Ranks

Perlakuan	N	Mean Rank
Sgpt kontrol normal	5	3,00
kontrol hepatotoksik	5	23,00
dosis 250	5	18,00
dosis 500	5	13,00
dosis 1000	5	8,00
Total	25	

Test Statistics^{a,b}

	sgpt
Chi-Square	23,077
Df	4
Asymp. Sig.	,000

a. Kruskal Wallis Test

b. Grouping Variable: perlakuan

Lampiran 6. Hasil Uji Mann-Whitney Data Kadar SGPT

1) Hasil Uji Mann-Whitney Kontrol Normal VS Kontrol Hepatotoksik

Ranks

Perlakuan	N	Mean Rank	Sum of Ranks
Sgpt kontrol normal	5	3,00	15,00
kontrol hepatotoksik	5	8,00	40,00
Total	10		

Test Statistics^a

	Sgpt
Mann-Whitney U	,000
Wilcoxon W	15,000
Z	-2,611
Asymp. Sig. (2-tailed)	,009
Exact Sig. [2*(1-tailed Sig.)]	,008 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

2) Hasil Uji Mann-Whitney Kontrol Normal VS Dosis 250 mg/kgBB

Ranks

perlakuan	N	Mean Rank	Sum of Ranks
Sgpt kontrol normal	5	3,00	15,00
dosis 250	5	8,00	40,00
Total	10		

Lampiran 6. Lanjutan...

Test Statistics^a

	sgpt
Mann-Whitney U	,000
Wilcoxon W	15,000
Z	-2,611
Asymp. Sig. (2-tailed)	,009
Exact Sig. [2*(1-tailed Sig.)]	,008 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

3) Hasil Uji Mann-Whitney Kontrol Normal VS Dosis 500 mg/kgBB

Ranks

Perlakuan	N	Mean Rank	Sum of Ranks
Sgpt kontrol normal	5	3,00	15,00
dosis 500	5	8,00	40,00
Total	10		

Test Statistics^a

	sgpt
Mann-Whitney U	,000
Wilcoxon W	15,000
Z	-2,611
Asymp. Sig. (2-tailed)	,009
Exact Sig. [2*(1-tailed Sig.)]	,008 ^b

Lampiran 6. Lanjutan...

a. Grouping Variable: perlakuan

b. Not corrected for ties.

4) Hasil Uji Mann-Whitney Kontrol Normal VS Dosis 1.000 mg/kgBB

Ranks

perlakuan	N	Mean Rank	Sum of Ranks
Sgpt kontrol normal	5	3,00	15,00
dosis 1000	5	8,00	40,00
Total	10		

Test Statistics^a

	Sgpt
Mann-Whitney U	,000
Wilcoxon W	15,000
Z	-2,611
Asymp. Sig. (2-tailed)	,009
Exact Sig. [2*(1-tailed Sig.)]	,008 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

Lampiran 6. Lanjutan...

5) Hasil Uji Mann-Whitney Kontrol Hepatotoksik VS Dosis 250 mg/kgBB

Ranks

Perlakuan	N	Mean Rank	Sum of Ranks
Sgpt kontrol hepatotoksik	5	8,00	40,00
dosis 250	5	3,00	15,00
Total	10		

Test Statistics^a

	sgpt
Mann-Whitney U	,000
Wilcoxon W	15,000
Z	-2,611
Asymp. Sig. (2-tailed)	,009
Exact Sig. [2*(1-tailed Sig.)]	,008 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

Lampiran 6. Lanjutan...

6) Hasil Uji Mann-Whitney Kontrol Hepatotoksik VS Dosis 500 mg/kgBB

Ranks

Perlakuan	N	Mean Rank	Sum of Ranks
Sgpt kontrol hepatotoksik	5	8,00	40,00
dosis 500	5	3,00	15,00
Total	10		

Test Statistics^a

	sgpt
Mann-Whitney U	,000
Wilcoxon W	15,000
Z	-2,611
Asymp. Sig. (2-tailed)	,009
Exact Sig. [2*(1-tailed Sig.)]	,008 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

7) Hasil Uji Mann-Whitney Kontrol Hepatotoksik VS Dosis 1.000 mg/kgBB

Ranks

Perlakuan	N	Mean Rank	Sum of Ranks
Sgpt kontrol hepatotoksik	5	8,00	40,00
dosis 1000	5	3,00	15,00
Total	10		

Lampiran 6. Lanjutan...

Test Statistics^a

	sgpt
Mann-Whitney U	,000
Wilcoxon W	15,000
Z	-2,611
Asymp. Sig. (2-tailed)	,009
Exact Sig. [2*(1-tailed Sig.)]	,008 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

8) Hasil Uji Mann-Whitney Dosis 250 mg/kgBB VS Dosis 500 mg/kgBB

Ranks

perlakuan	N	Mean Rank	Sum of Ranks
Sgpt dosis 250	5	8,00	40,00
dosis 500	5	3,00	15,00
Total	10		

Test Statistics^a

	sgpt
Mann-Whitney U	,000
Wilcoxon W	15,000
Z	-2,611
Asymp. Sig. (2-tailed)	,009
Exact Sig. [2*(1-tailed Sig.)]	,008 ^b

Lampiran 6. Lanjutan...

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

9) Hasil Uji Mann-Whitney Dosis 250 mg/kgBB VS Dosis 1.000 mg/kgBB

10) Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
Sgpt	dosis 250	5	8,00	40,00
	dosis 1000	5	3,00	15,00
	Total	10		

Test Statistics^a

	sgpt
Mann-Whitney U	,000
Wilcoxon W	15,000
Z	-2,611
Asymp. Sig. (2-tailed)	,009
Exact Sig. [2*(1-tailed Sig.)]	,008 ^b

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

Lampiran 6. Lanjutan...

11) Hasil Uji Mann-Whitney Dosis 500 mg/kgBB VS Dosis 1.000 mg/kgBB

Ranks

perlakuan	N	Mean Rank	Sum of Ranks
Sgpt dosis 500	5	8,00	40,00
dosis 1000	5	3,00	15,00
Total	10		

Test Statistics^a

	sgpt
Mann-Whitney U	,000
Wilcoxon W	15,000
Z	-2,611
Asymp. Sig. (2-tailed)	,009
Exact Sig. [2*(1-tailed Sig.)]	,008 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

Lampiran 7. Hasil Uji Homogenitas Varian dan Normalitas Data Kadar SGOT

1. Hasil Uji Homogenitas Varian 2 Kelompok

Test of Homogeneity of Variance

	Levene Statistic	df1	df2	Sig.
Sgot Based on Mean	16,029	1	8	,004
Based on Median	4,331	1	8	,071
Based on Median and with adjusted df	4,331	1	4,162	,103
Based on trimmed mean	14,892	1	8	,005

2. Hasil Uji Normalitas 2 kelompok

One-Sample Kolmogorov-Smirnov Test

	KT	KN
N	5	5
Normal Parameters ^{a,b}		
Mean	478,4600	77,5400
Std. Deviation	57,56560	11,40978
Most Extreme Differences		
Absolute	,179	,239
Positive	,139	,162
Negative	-,179	-,239
Test Statistic	,179	,239
Asymp. Sig. (2-tailed)	,200 ^{c,d}	,200 ^{c,d}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

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

Lampiran 7. Lanjutan...

3. Hasil Uji Homogenitas Varian 5 Kelompok

Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
sgot	Based on Mean	6,484	4	20	,002
	Based on Median	3,201	4	20	,035
	Based on Median and with adjusted df	3,201	4	8,024	,075
	Based on trimmed mean	6,275	4	20	,002

4. Hasil Uji Normalitas 5 Kelompok

One-Sample Kolmogorov-Smirnov Test

		KT	KN	K1	K2	K3
Normal Parameters ^{a,b}	Mean	5	5	5	5	5
	Std. Deviation	478,4600	77,5400	277,0600	161,5000	125,3800
		57,56560	11,40978	17,26841	17,94506	17,70585
Most Extreme Differences	Absolute	,179	,239	,294	,202	,247
	Positive	,139	,162	,210	,202	,247
	Negative	-,179	-,239	-,294	-,169	-,171
Test Statistic		,179	,239	,294	,202	,247
Asymp. Sig. (2-tailed)		,200 ^{c,d}	,200 ^{c,d}	,184 ^c	,200 ^{c,d}	,200 ^{c,d}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

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

Lampiran 8. Hasil Uji Kruskal-Wallis Data Kadar SGOT

Ranks

perlakuan	N	Mean Rank
Sgpt kontrol normal	5	3,00
kontrol hepatotoksik	5	23,00
dosis 250	5	18,00
dosis 500	5	13,00
dosis 1000	5	8,00
Total	25	

Test Statistics^{a,b}

	sgpt
Chi-Square	23,077
Df	4
Asymp. Sig.	,000

a. Kruskal Wallis Test

b. Grouping Variable:
perlakuan

Lampiran 9. Hasil Uji Mann-Whitney Data Kadar SGOT

1) Hasil Uji Mann-Whitney Kontrol Normal VS Kontrol Hepatotoksik

Ranks

perlakuan	N	Mean Rank	Sum of Ranks
sgot kontrol normal	5	3,00	15,00
kontrol hepatotoksik	5	8,00	40,00
Total	10		

Test Statistics^a

	sgot
Mann-Whitney U	,000
Wilcoxon W	15,000
Z	-2,611
Asymp. Sig. (2-tailed)	,009
Exact Sig. [2*(1-tailed Sig.)]	,008 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

2) Hasil Uji Mann-Whitney Kontrol Normal VS Dosis 250 mg/kgBB

Ranks

perlakuan	N	Mean Rank	Sum of Ranks
sgot kontrol normal	5	3,00	15,00
dosis 250	5	8,00	40,00
Total	10		

Lampiran 9. Lanjutan...

Test Statistics^a

	Sgot
Mann-Whitney U	,000
Wilcoxon W	15,000
Z	-2,619
Asymp. Sig. (2-tailed)	,009
Exact Sig. [2*(1-tailed Sig.)]	,008 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

3) Hasil Uji Mann-Whitney Kontrol Normal VS Dosis 500 mg/kgBB

Ranks

Perlakuan	N	Mean Rank	Sum of Ranks
sgot kontrol normal	5	3,00	15,00
dosis 500	5	8,00	40,00
Total	10		

Test Statistics^a

	sgot
Mann-Whitney U	,000
Wilcoxon W	15,000
Z	-2,611
Asymp. Sig. (2-tailed)	,009
Exact Sig. [2*(1-tailed Sig.)]	,008 ^b

a. Grouping Variable: perlakuan

Lampiran 9. Lanjutan...

b. Not corrected for ties.

4) Hasil Uji Mann-Whitney Kontrol Normal VS Dosis 1.000 mg/kgBB

5) Ranks

Perlakuan	N	Mean Rank	Sum of Ranks
sgot kontrol normal	5	3,00	15,00
dosis 1000	5	8,00	40,00
Total	10		

Test Statistics^a

	sgot
Mann-Whitney U	,000
Wilcoxon W	15,000
Z	-2,611
Asymp. Sig. (2-tailed)	,009
Exact Sig. [2*(1-tailed Sig.)]	,008 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

6) Hasil Uji Mann-Whitney Kontrol Hepatotoksik VS Dosis 250 mg/kgBB

Ranks

Perlakuan	N	Mean Rank	Sum of Ranks
sgot kontrol hepatotoksik	5	8,00	40,00
dosis 250	5	3,00	15,00
Total	10		

Lampiran 9. Lanjutan...

Test Statistics^a

	sgot
Mann-Whitney U	,000
Wilcoxon W	15,000
Z	-2,619
Asymp. Sig. (2-tailed)	,009
Exact Sig. [2*(1-tailed Sig.)]	,008 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

7) Hasil Uji Mann-Whitney Kontrol Hepatotoksik VS Dosis 500 mg/kgBB

Ranks

Perlakuan	N	Mean Rank	Sum of Ranks
sgot kontrol hepatotoksik	5	8,00	40,00
dosis 500	5	3,00	15,00
Total	10		

Test Statistics^a

	sgot
Mann-Whitney U	,000
Wilcoxon W	15,000
Z	-2,611
Asymp. Sig. (2-tailed)	,009
Exact Sig. [2*(1-tailed Sig.)]	,008 ^b

Lampiran 9. Lanjutan...

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

8) Hasil Uji Mann-Whitney Kontrol Hepatotoksik VS Dosis 1.000 mg/kgBB

Ranks

Perlakuan	N	Mean Rank	Sum of Ranks
sgot kontrol hepatotoksik	5	8,00	40,00
dosis 1000	5	3,00	15,00
Total	10		

Test Statistics^a

	sgot
Mann-Whitney U	,000
Wilcoxon W	15,000
Z	-2,611
Asymp. Sig. (2-tailed)	,009
Exact Sig. [2*(1-tailed Sig.)]	,008 ^b

- a. Grouping Variable: perlakuan

- b. Not corrected for ties

Lampiran 9. Lanjutan...

9) Hasil Uji Mann-Whitney Dosis 250 mg/kgBB VS Dosis 500 mg/kgBB

Ranks

perlakuan	N	Mean Rank	Sum of Ranks
sgot dosis 250	5	8,00	40,00
dosis 500	5	3,00	15,00
Total	10		

Test Statistics^a

	sgot
Mann-Whitney U	,000
Wilcoxon W	15,000
Z	-2,619
Asymp. Sig. (2-tailed)	,009
Exact Sig. [2*(1-tailed Sig.)]	,008 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

10) Hasil Uji Mann-Whitney Dosis 250 mg/kgBB VS Dosis 1.000 mg/kgBB

Ranks

perlakuan	N	Mean Rank	Sum of Ranks
sgot dosis 250	5	8,00	40,00
dosis 1000	5	3,00	15,00
Total	10		

Lampiran 9. Lanjutan...

Test Statistics^a

	sgot
Mann-Whitney U	,000
Wilcoxon W	15,000
Z	-2,619
Asymp. Sig. (2-tailed)	,009
Exact Sig. [2*(1-tailed Sig.)]	,008 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

11) Hasil Uji Mann-Whitney Dosis 500 mg/kgBB VS Dosis 1.000 mg/kgBB

Ranks

	perlakuan	N	Mean Rank	Sum of Ranks
sgot	dosis 500	5	7,60	38,00
	dosis 1000	5	3,40	17,00
	Total	10		

Test Statistics^a

	sgot
Mann-Whitney U	2,000
Wilcoxon W	17,000
Z	-2,193
Asymp. Sig. (2-tailed)	,028
Exact Sig. [2*(1-tailed Sig.)]	,032 ^b

a. Grouping Variable: perlakuan

b. Not corrected for ties.

Lampiran 10. Perhitungan Dosis Doksorubisin dan Ekstrak Etanol Herba Alfalfa

1. CMC-Na 0,5%

Larutan stok CMC-Na 0,5% dibuat 500 mL, maka CMC-Na yang ditimbang =

$$\frac{0,5 \text{ gram}}{100 \text{ mL}} \times 500 \text{ mL} = 2,5 \text{ gram}$$

2,5 gram CMC-Na disuspensikan ke dalam aquadest sampai 500 mL.

2. Faktor Konversi Doksorubisin

Dosis doksorubisin untuk tikus menurut Ekowati *et al* (2013), yaitu 5 kg/kgBB, sedangkan dalam penelitian ini memakai mencit galur Swiss.

Faktor konversi = 0,14 → dari tikus BB 200 g → mencit BB 20 g.

BB rata-rata tikus = 200 g

$$\begin{aligned} \text{Do tikus 200 g} &= \frac{200 \text{ g}}{1000 \text{ g}} \times 5 \text{ mg} \\ &= 1 \text{ mg} \end{aligned}$$

BB rata-rata mencit = 20 g

$$\begin{aligned} &= 1 \text{ mg} \times 0,14 \\ &= 0,14 \text{ mg/20gBB} \end{aligned}$$

3. Dosis Doksorubisin

Larutan stok doksorubisin 2 mg/mL diencerkan 10 kali menjadi 0,2mg/mL.

Volume pemberian untuk mencit 20 gram adalah:

$$\frac{20 \text{ gram}}{20 \text{ gram}} \times 0,14 \text{ mg} = 0,14 \text{ mg}$$

$$V_p = \frac{0,14 \text{ mg}}{0,2 \text{ mg}} \times 1 \text{ mL} = 0,7 \text{ mL}$$

Jadi, volume pemberian doksorubisin ke mencit yaitu **0,7 mL**

Lampiran 10.Lanjutan...

4. Ekstrak etanol herba alfalfa

Dosis ekstrak etanol yang digunakan pada penelitian ini adalah 250 mg/KgBB, 500 mg/KgBB dan 1.000 mg/KgBB

a. Kelompok perlakuan dosis 1000 mg/KgBB

Berat mencit rata-rata : 20 gram

Dosis mencit BB 20 gram : $\frac{20 \text{ gram}}{1000 \text{ gram}} \times 1000 \text{ mg} = 20 \text{ mg}$

Volume pemberian ideal mencit melalui p.o : 0,5 mL.

Maka konsentrasi larutan stok dosis 1000 mg/KgBB: $\frac{20 \text{ mg}}{0,5 \text{ mL}} = 40 \text{ mg/mL}$

Volume pemberian mencit 20 gram adalah: $\frac{20 \text{ gram}}{1000 \text{ gram}} \times 1000 \text{ mg} = 20 \text{ mg}$

$V_p = \frac{20 \text{ mg}}{40 \text{ mg}} \times 1 \text{ mL} = 0,5 \text{ mL}$

Jadi, ekstrak etanol herba alfalfa yang diberikan ke mencit yaitu **0,5 mL**

b. Kelompok perlakuan dosis 500 mg/KgBB

Berat mencit rata-rata : 20 gram

Dosis mencit BB 20 gram : $\frac{20 \text{ gram}}{1000 \text{ gram}} \times 500 \text{ mg} = 10 \text{ mg}$

Volume pemberian ideal mencit melalui p.o : 0,5 mL.

Maka konsentrasi larutan stok dosis 500 mg/KgBB: $\frac{10 \text{ mg}}{0,5 \text{ mL}} = 20 \text{ mg/mL}$

Untuk membuat larutan stok konsentrasi 20 mg/mL maka larutan stok 40 mg/mL diencerkan 2 kali dengan perhitungan sebagai berikut:

$$C_1 \times V_1 = C_2 \times V_2$$

$$40 \text{ mg/mL} \times V_1 = 20 \text{ mg/mL} \times 10 \text{ mL}$$

$$V_1 = \frac{20 \frac{\text{mg}}{\text{ml}} \times 10 \text{ ml}}{40 \text{ mg/ml}}$$

$$= 5 \text{ mL}$$

Lampiran 10.Lanjutan...

Jadi, pengambilan dilarutan stok 40 mg/mL = **5 mL**

Volume pemberian untuk mencit 20 gram adalah:

$$\frac{20 \text{ gram}}{1000 \text{ gram}} \times 500 \text{ mg} = 10 \text{ mg}$$

$$V_p = \frac{10 \text{ mg}}{20 \text{ mg}} \times 1 \text{ mL} = 0,5 \text{ mL}$$

Jadi, ekstrak etanol herba alfalfa yang diberikan ke mencit yaitu **0,5 mL**

c. Kelompok perlakuan dosis 250 mg/KgBB

Berat mencit rata-rata : 20 gram

$$\text{Dosis mencit BB 20 gram : } \frac{20 \text{ gram}}{1000 \text{ gram}} \times 250 \text{ mg} = 5 \text{ mg}$$

Volume pemberian ideal mencit melalui p.o : 0,5 mL.

$$\text{Maka konsentrasi larutan stok dosis 250 mg/KgBB: } \frac{5 \text{ mg}}{0,5 \text{ mL}} = 10 \text{ mg/mL}$$

Untuk membuat larutan stok konsentrasi 10 mg/mL maka larutan stok 40 mg/mL diencerkan 4 kali dengan perhitungan sebagai berikut:

$$C_1 \times V_1 = C_2 \times V_2$$

$$40 \text{ mg/mL} \times V_1 = 10 \text{ mg/mL} \times 10 \text{ mL}$$

$$V_1 = \frac{10 \frac{\text{mg}}{\text{mL}} \times 10 \text{ mL}}{40 \text{ mg/mL}}$$

$$= 2,5 \text{ mL}$$

Jadi, pengambilan dilarutan stok 40 mg/mL = **2,5 mL**

Volume pemberian untuk mencit 20 gram adalah:

$$\frac{20 \text{ gram}}{1000 \text{ gram}} \times 250 \text{ mg} = 5 \text{ mg}$$

$$V_p = \frac{5 \text{ mg}}{10 \text{ mg}} \times 1 \text{ mL} = 0,5 \text{ mL}$$

Jadi, ekstrak etanol herba alfalfa yang diberikan ke mencit yaitu **0,5 mL**

Lampiran 11. Data Volume Pemberian Ekstrak Etanol Herba Alfalfa

Kelompok	No.mencit	Hari 1		Hari 5		Hari 9		Hari 13	
		BB (g)	Vol (mL)	BB (g)	Vol (mL)	BB (g)	Vol (mL)	BB (g)	Vol (mL)
EEHA dosis 250 mg/kgBB	1	25	0,63	24	0,6	22	0,55	20	0,5
	2	25	0,63	22	0,55	20	0,5	19	0,48
	3	28	0,7	26	0,65	23	0,58	20	0,5
	4	25	0,63	23	0,58	20	0,5	19	0,48
	5	26	0,65	25	0,63	23	0,58	21	0,53
EEHA dosis 500 mg/kgBB	1	24	0,6	23	0,58	22	0,55	20	0,5
	2	25	0,63	24	0,6	23	0,58	20	0,5
	3	27	0,68	26	0,65	24	0,6	21	0,53
	4	25	0,63	24	0,6	23	0,58	20	0,5
	5	24	0,6	22	0,55	22	0,55	20	0,5
EEHA dosis 1.000 mg/kgBB	1	29	0,73	28	0,7	26	0,65	23	0,58
	2	24	0,6	25	0,63	22	0,55	20	0,5
	3	28	0,7	26	0,65	24	0,6	21	0,53
	4	20	0,5	19	0,48	19	0,48	18	0,45
	5	22	0,55	21	0,53	20	0,5	18	0,45

Lampiran 12. Data Volume Pemberian Dokсорubisin

Kelompok	No. Mencit	Hari 1		Hari 5		Hari 9		Hari 13	
		BB (g)	Vol (mL)	BB (g)	Vol (mL)	BB (g)	Vol (mL)	BB (g)	Vol (mL)
EEHA dosis 250mg/ KgBB + doksorubisin 0,14mg/ 20gBB	1	25	0,875	24	0,84	22	0,77	20	0,7
	2	25	0,875	22	0,77	20	0,7	19	0,665
	3	28	0,98	26	0,91	23	0,805	20	0,7
	4	25	0,875	23	0,805	20	0,7	19	0,665
	5	26	0,91	25	0,875	23	0,805	21	0,735
EEHA dosis 500mg/ KgBB + doksorubisin 0,14mg/ 20gBB	1	24	0,84	23	0,805	22	0,77	20	0,7
	2	25	0,875	24	0,84	23	0,805	20	0,7
	3	27	0,945	26	0,91	24	0,84	21	0,735
	4	25	0,875	24	0,84	23	0,805	20	0,7
	5	24	0,84	22	0,665	22	0,77	20	0,7
EEHA dosis 1000mg/ KgBB + doksorubisin 0,14mg/ 20gBB	1	29	1,015	28	0,98	26	0,91	23	0,805
	2	24	0,84	25	0,875	22	0,77	20	0,7
	3	28	0,98	26	0,91	24	0,84	21	0,735
	4	20	0,7	19	0,665	19	0,665	18	0,63
	5	22	0,77	21	0,735	20	0,7	18	0,63
Hepatotoksik dengan doksorubisin dosis 0,14 mg/20gBB	1	28	0,98	27	0,945	22	0,77	19	0,665
	2	23	0,805	22	0,77	20	0,7	18	0,63
	3	22	0,77	21	0,735	19	0,665	18	0,63
	4	25	0,875	24	0,84	22	0,77	20	0,7
	5	28	0,98	27	0,945	23	0,805	20	0,7

Lampiran 13. Data kadar SGOT dan SGPT

Perlakuan	No Hewan Uji	Kadar SGOT (U/L)	Kadar SGPT (U/L)
Kelompok kontrol normal	1	59,3	30,5
	2	81,6	31,3
	3	88,8	36,9
	4	83,5	39,3
	5	74,5	47,4
Rata-rata		77,54	37,08
$\pm$ SEM		1,969	1,362
Kelompok kontrol hepatotoksik	1	490	199,7
	2	441,6	202,1
	3	400,6	172,4
	4	516,3	180
	5	543,8	208,5
Rata-rata		478,46	192,54
$\pm$ SEM		4,891	3,103
Kelompok dosis 250 mg/KgBB	1	253,4	123,1
	2	285,8	129,6
	3	291	122,9
	4	291	116,8
	5	264,1	121,1
Rata-rata		277,06	122,7
$\pm$ SEM		3,722	2,477
Kelompok dosis 500 mg/KgBB	1	140,9	99,2
	2	164,6	90,3
	3	184,5	91,8
	4	146,3	77,7
	5	171,2	88,9
Rata-rata		161,5	89,58
$\pm$ SEM		2,842	2,116
Kelompok dosis 1.000 mg/KgBB	1	118,7	57,2
	2	112,7	51,1
	3	149,2	73,1
	4	138,5	50,1
	5	107,8	62,8
Rata-rata		125,38	58,86
$\pm$ SEM		2,504	1,715

Lampiran 14. Dokumentasi Selama Penelitian



Larutan Dokсорubisin



Larutan Ekstrak Etanol Herba Alfalfa



Pemberian Ekstrak Etanol Herba Alfalfa Secara Peroral



Pemberian Dokсорubisin Secara Intraperitoneal



Proses Pengambilan Darah dari Sinus Orbitalis

Lampiran 11. Lanjutan...



Proses Pemisahan Serum



Serum yang Telah
Dipisahkan

