

## LAMPIRAN-1 : Kaji Etik



KOMISI ETIK RISET  
FAKULTAS KEDOKTERAN  
UNIVERSITAS TRISAKTI  
Jalan Kyai Tapa, Grogol, (Kampus B) Jakarta 11440  
Telp: (021) 5672731, 5655786  
Fax : (021) 5660706

**PERSETUJUAN ETIK**  
*Ethical Clearance*  
**Nomor: 124/KER/FK/XII/2017**

Komisi Etik Riset Fakultas Kedokteran Universitas Trisakti setelah mempelajari dengan seksama dan mendengarkan penjelasan dari peneliti utama tentang kemungkinan adanya dampak etis terhadap subyek riset, masyarakat dan lingkungan, menetapkan penelitian dengan judul:

**"PENGARUH PEMBERIAN EKSTRAK BUAH *AEGLE MARMELOS* TERHADAP STRES OKSIDATIF PADA PARU TIKUS *SPRAGUE DAWLEY* YANG DIINDUKSI HIPOKSIA"**

Peneliti Utama : Natasha Olivia Christian

Lembaga/Tempat penelitian : FK Universitas Tarumanagara

Dinyatakan memenuhi persyaratan etik untuk dilaksanakan.

Jakarta, 18 Desember 2017

Ketua  
  
Prof. DR. dr. Adi Hidayat, MS

Sekretaris  
  
dr. Alvina SpPK

## LAMPIRAN-2 : Identifikasi



**LEMBAGA ILMU PENGETAHUAN INDONESIA  
(INDONESIAN INSTITUTE OF SCIENCES)  
PUSAT PENELITIAN BIOLOGI  
(RESEARCH CENTER FOR BIOLOGY)**

Cibinong Science Center, Jl. Raya Jakarta - Bogor KM. 46 Cibinong 16911  
Telp. (+62 21) 87907636 - 87907604, Fax. 87907612  
Website : [www.biologi.lipi.go.id](http://www.biologi.lipi.go.id)



Cibinong, Agustus 2017

Nomor : ~~200~~/IPH.1.01/If.07/VIII/2017  
Lampiran : -  
Perihal : Hasil identifikasi/ determinasi Tumbuhan

Kepada Yth.  
Bpk./Ibu/Sdr(i). **Eric Eksany**  
Univ. TARUMANAGARA  
Jl. Letjend S. Parman No. 1  
Jakarta 11440


Dengan hormat,

Bersama ini kami sampaikan hasil identifikasi/determinasi tumbuhan yang Saudara kirimkan ke "Herbarium Bogoriense", Bidang Botani Pusat Penelitian Biologi-LIPI Bogor, adalah sebagai berikut :

No.	No. Kol.	Jenis	Suku
1	Buah maja	<i>Aegle marmelos</i> (L.) Correa	Rutaceae

Demikian, semoga berguna bagi Saudara.

Kepala Bidang Botani  
Pusat Penelitian Biologi-LIPI,

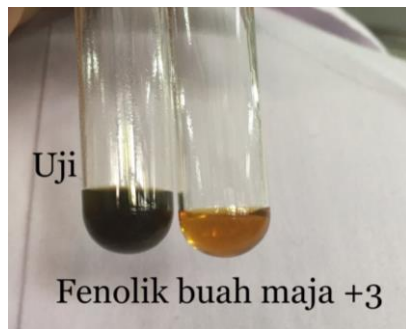
  
Dr. Joeni Setijo Rahajoe  
NIP. 196706241993032004

### LAMPIRAN-3 : Pengukuran Pada Sampel

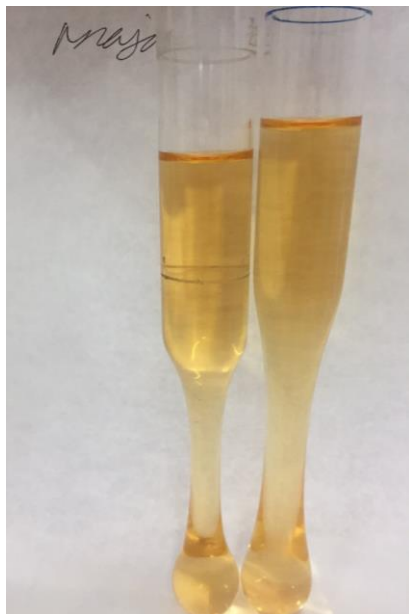


Gambar 1. Hasil Uji Alkaloid Kualitatif

Gambar 2. Hasil Uji Fenolik Kualitatif



Gambar 3. Hasil Uji Flavonoid Kualitatif



Tabel 1 Regresi Linear DPPH Buah Maja

---

Best-fit values $\pm$ SE	
Slope	0.09932 $\pm$ 0.01145
Y-intercept	23.35 $\pm$ 1.403
X-intercept	-235.1
1/slope	10.07
95% Confidence Intervals	
Slope	0.0629 to 0.1357
Y-intercept	18.89 to 27.82
X-intercept	-432.8 to -142.2
Goodness of Fit	
R square	0.9617
Sy.x	1.739
Is slope significantly non-zero?	
F	75.3
DFn, DFd	1, 3
P value	0.0032
Deviation from zero?	Significant
Equation	$Y = 0.09932 * X + 23.35$
Data	
Number of X values	5
Maximum number of Y replicates	1
Total number of values	5
Number of missing values	0

---

Tabel 2 Regresi Linear DPPH Vitamin C

---

Best-fit values $\pm$ SE	
Slope	15.07 $\pm$ 0.5829
Y-intercept	-6.266 $\pm$ 2.473
X-intercept	0.4157
1/slope	0.06634
95% Confidence Intervals	
Slope	13.22 to 16.93
Y-intercept	-14.14 to 1.604
X-intercept	-0.1204 to 0.8416
Goodness of Fit	
R square	0.9955
Sy.x	1.843
Is slope significantly non-zero?	
F	668.7
DFn, DFd	1, 3
P value	0.0001
Deviation from zero?	Significant
Equation	$Y = 15.07 * X - 6.266$
Data	
Number of X values	5
Maximum number of Y replicates	1
Total number of values	5
Number of missing values	0

---

Tabel 3 Rregresi Linear Fenolik

---

Best-fit values $\pm$ SE	
Slope	0.000728 $\pm$ 4.881e-005
Y-intercept	0.1254 $\pm$ 0.02536
X-intercept	-172.3
1/slope	1374
95% Confidence Intervals	
Slope	0.0005727 to 0.0008833
Y-intercept	0.04468 to 0.2061
X-intercept	-357.8 to -50.89
Goodness of Fit	
R square	0.9867
Sy.x	0.01544
Is slope significantly non-zero?	
F	222.4
DFn, DFd	1, 3
P value	0.0007
Deviation from zero?	Significant
Equation	Y = 0.000728*X + 0.1254
Data	
Number of X values	5
Maximum number of Y replicates	1
Total number of values	5
Number of missing values	0

---

Table 4 Regresi Linear Flavonoid

---

Best-fit values $\pm$ SE	
Slope	0.01248 $\pm$ 0.0003456
Y-intercept	0.0056 $\pm$ 0.004233
X-intercept	-0.4487
1/slope	80.13
95% Confidence Intervals	
Slope	0.01138 to 0.01358
Y-intercept	-0.007872 to 0.01907
X-intercept	-1.65 to 0.5888
Goodness of Fit	
R square	0.9977
Sy.x	0.005465
Is slope significantly non-zero?	
F	1304
DFn, DFd	1, 3
P value	<0.0001
Deviation from zero?	Significant
Equation	$Y = 0.01248 * X + 0.0056$
Data	
Number of X values	5
Maximum number of Y replicates	1
Total number of values	5
Number of missing values	0

---

Table 5 Regresi Linear Standar MDA

---

Best-fit values $\pm$ SE	
Slope	0.1191 $\pm$ 0.001715
Y-intercept	0.005342 $\pm$ 0.002021
X-intercept	-0.04487
1/slope	8.398
95% Confidence Intervals	
Slope	0.1143 to 0.1238
Y-intercept	-0.0002676 to 0.01095
X-intercept	-0.09469 to 0.002187
Goodness of Fit	
R square	0.9992
Sy.x	0.003554
Is slope significantly non-zero?	
F	4822
DFn, DFd	1, 4
P value	<0.0001
Deviation from zero?	Significant
Equation	$Y = 0.1191 * X + 0.005342$
Data	
Number of X values	6
Maximum number of Y replicates	1
Total number of values	6
Number of missing values	0

---



Tabel 6 Regresi Linear BSLT

---

Best-fit values $\pm$ SE	
Slope	0.001376 $\pm$ 0.0002716
Y-intercept	0.196 $\pm$ 0.1525
X-intercept	-142.4
1/slope	726.5
95% Confidence Intervals	
Slope	0.0002077 to 0.002545
Y-intercept	-0.46 to 0.852
X-intercept	-3324 to 223.1
Goodness of Fit	
R square	0.9277
Sy.x	0.2125
Is slope significantly non-zero?	
F	25.68
DFn, DFd	1, 2
P value	0.0368
Deviation from zero?	Significant
Equation	$Y = 0.001376 * X + 0.196$
Data	
Number of X values	4
Maximum number of Y replicates	1
Total number of values	4
Number of missing values	0

---

Tabel 7 Regresi Linear Kolerasi Kadar MDA Ginjal Dan Darah Kontrol

Best-fit values $\pm$ SE	
Slope	0.3248 $\pm$ 0.03088
Y-intercept	-0.08085 $\pm$ 0.06616
X-intercept	0.249
1/slope	3.079
95% Confidence Intervals	
Slope	0.1919 to 0.4576
Y-intercept	-0.3655 to 0.2038
X-intercept	-1.038 to 0.8175
Goodness of Fit	
R square	0.9822
Sy.x	0.0414
Is slope significantly non-zero?	
F	110.6
DFn, DFd	1, 2
P value	0.0089
Deviation from zero?	Significant
Equation	$Y = 0.3248 * X - 0.08085$
Data	
Number of X values	4
Maximum number of Y replicates	1
Total number of values	4
Number of missing values	0

Tabel 8 Regresi Linear Kadar MDA Ginjal Dan Darah Cekok

Best-fit values $\pm$ SE	
Slope	0.2224 $\pm$ 0.02899
Y-intercept	0.079 $\pm$ 0.05404
X-intercept	-0.3552
1/slope	4.496
95% Confidence Intervals	
Slope	0.09768 to 0.3471
Y-intercept	-0.1535 to 0.3115
X-intercept	-3.055 to 0.4617
Goodness of Fit	
R square	0.9671
Sy.x	0.0448
Is slope significantly non-zero?	
F	58.87
DFn, DFd	1, 2
P value	0.0166
Deviation from zero?	Significant
Equation	$Y = 0.2224 * X + 0.079$
Data	
Number of X values	4
Maximum number of Y replicates	1
Total number of values	4
Number of missing values	0

Tabel 9 Uji Normalitas Ginjal pada Tikus yang Dicekok Ekstrak Buah Maja

	Normoksia	Hipoksia 3 hari	Hipoksia 7 hari	Hipoksia 14 hari
Number of values	4	4	4	4
Minimum	0.677	1.197	1.693	2.465
25% Percentile	0.6813	1.206	1.771	2.524
Median	0.7105	1.248	2.079	2.721
75% Percentile	0.7458	1.34	2.35	2.988
Maximum	0.752	1.365	2.415	3.07
Mean	0.7125	1.264	2.066	2.744
Std. Deviation	0.03353	0.07252	0.3015	0.249
Std. Error of Mean	0.01677	0.03626	0.1507	0.1245
Lower 95% CI of mean	0.6591	1.149	1.587	2.348
Upper 95% CI of mean	0.7659	1.38	2.546	3.141
Sum	2.85	5.057	8.265	10.98

Tabel 10 Uji Normalitas Ginjal pada Tikus Kontrol

	Normoksia	Hipoksia 3 hari	Hipoksia 7 hari	Hipoksia 14 hari
Number of values	4	4	4	4
Minimum	0.962	1.617	2.163	2.625
25% Percentile	0.9958	1.63	2.182	2.694
Median	1.181	1.68	2.306	3.02
75% Percentile	1.34	1.781	2.429	3.181
Maximum	1.365	1.81	2.448	3.196
Mean	1.172	1.697	2.306	2.965
Std. Deviation	0.1784	0.08182	0.1287	0.2598
Std. Error of Mean	0.08918	0.04091	0.06437	0.1299
Lower 95% CI of mean	0.8882	1.567	2.101	2.552
Upper 95% CI of mean	1.456	1.827	2.51	3.378
Sum	4.688	6.787	9.222	11.86

Table 11 Uji Normalitas Darah pada Tikus Kontrol

	Normoksia	Hipoksia 3 hari	Hipoksia 7 hari	Hipoksia 14 hari
Number of values	4	4	4	4
Minimum	0.247	0.489	0.602	0.837
25% Percentile	0.2475	0.49	0.604	0.8455
Median	0.2785	0.5055	0.631	0.879
75% Percentile	0.3208	0.5435	0.6648	0.95
Maximum	0.325	0.552	0.669	0.971
Mean	0.2823	0.513	0.6333	0.8915
Std. Deviation	0.04016	0.02899	0.03239	0.05695
Std. Error of Mean	0.02008	0.0145	0.01619	0.02848
Lower 95% CI of mean	0.2183	0.4669	0.5817	0.8009
Upper 95% CI of mean	0.3462	0.5591	0.6848	0.9821
Sum	1.129	2.052	2.533	3.566

Tabel 12 Uji Normalitas Darah pada Tikus yang Dicekok Ekstrak Buah Maja

	Normoksia	Hipoksia 3 hari	Hipoksia 7 hari	Hipoksia 14 hari
Number of values	4	4	4	4
Minimum	0.165	0.392	0.476	0.677
25% Percentile	0.1673	0.394	0.4823	0.6813
Median	0.2115	0.4045	0.505	0.7025
75% Percentile	0.2678	0.421	0.5218	0.717
Maximum	0.274	0.425	0.526	0.719
Mean	0.2155	0.4065	0.503	0.7003
Std. Deviation	0.05421	0.01415	0.0208	0.01868
Std. Error of Mean	0.02711	0.007077	0.0104	0.00934
Lower 95% CI of mean	0.1292	0.384	0.4699	0.6705
Upper 95% CI of mean	0.3018	0.429	0.5361	0.73
Sum	0.862	1.626	2.012	2.801

Tabel 13 Perbandingan Kadar MDA pada Darah Perlakuan Normoksia dengan Hipoksia 3 Hari pada Tikus Kontrol

Table Analyzed	Kontrol Darah
Column B	Hipoksia 3 hari
vs.	vs.
Column A	Normoksia
Mann Whitney test	
P value	0.0286
Exact or approximate P value?	Exact
P value summary	*
Significantly different (P < 0.05)?	Yes
One- or two-tailed P value?	Two-tailed
Sum of ranks in column A,B	10 , 26
Mann-Whitney U	0
Difference between medians	
Median of column A	0.2785, n=4
Median of column B	0.5055, n=4
Difference: Actual	0.227
Difference: Hodges-Lehmann	0.241

Table 14 Perbandingan Kadar MDA pada Darah Perlakuan Normoksia dengan Hipoksia 7 Hari pada Tikus Kontrol

Table Analyzed	Kontrol Darah
Column C	Hipoksia 7 hari
vs.	vs.
Column A	Normoksia
Mann Whitney test	
P value	0.0286
Exact or approximate P value?	Exact
P value summary	*
Significantly different ( $P < 0.05$ )? Yes	
One- or two-tailed P value?	Two-tailed
Sum of ranks in column A,C	10 , 26
Mann-Whitney U	0
Difference between medians	
Median of column A	0.2785, n=4
Median of column C	0.631, n=4
Difference: Actual	0.3525
Difference: Hodges-Lehmann	0.354

Tabel 15 Perbandingan Kadar MDA pada Darah Perlakuan Normoksia dengan Hipoksia 14 Hari pada Tikus Kontrol

Table Analyzed	Kontrol Darah
Column D	Hipoksia 14 hari
vs.	vs.
Column A	Normoksia
Mann Whitney test	
P value	0.0286
Exact or approximate P value?	Exact
P value summary	*
Significantly different ( $P < 0.05$ )? Yes	
One- or two-tailed P value?	Two-tailed
Sum of ranks in column A,D	10 , 26
Mann-Whitney U	0
Difference between medians	
Median of column A	0.2785, n=4
Median of column D	0.879, n=4
Difference: Actual	0.6005
Difference: Hodges-Lehmann	0.606

Tabel 16 Perbandingan Kadar MDA pada Darah Perlakuan Normoksia dengan Hipoksia 3 Hari pada Tikus Dicekok Ekstrak Buah Maja

Table Analyzed	Cekok Maja Darah
Column B	Hipoksia 3 hari
vs.	vs.
Column A	Normoksia
Mann Whitney test	
P value	0.0286
Exact or approximate P value?	Exact
P value summary	*
Significantly different ( $P < 0.05$ )? Yes	
One- or two-tailed P value?	Two-tailed
Sum of ranks in column A,B	10 , 26
Mann-Whitney U	0
Difference between medians	
Median of column A	0.2115, n=4
Median of column B	0.4045, n=4
Difference: Actual	0.193
Difference: Hodges-Lehmann	0.197

Tabel 17 Perbandingan Kadar MDA pada Darah Perlakuan Normoksia dengan Hipoksia 7 Hari pada Tikus Dicekok Ekstrak Buah Maja

Table Analyzed	Cekok Maja Darah
Column C	Hipoksia 7 hari
vs.	vs.
Column A	Normoksia
Mann Whitney test	
P value	0.0286
Exact or approximate P value?	Exact
P value summary	*
Significantly different ( $P < 0.05$ )? Yes	
One- or two-tailed P value?	Two-tailed
Sum of ranks in column A,C	10 , 26
Mann-Whitney U	0
Difference between medians	
Median of column A	0.2115, n=4
Median of column C	0.505, n=4
Difference: Actual	0.2935
Difference: Hodges-Lehmann	0.2895

Tabel 18 Perbandingan Kadar MDA pada Darah Perlakuan Normoksia dengan Hipoksia 14 Hari pada Tikus Dicekok Ekstrak Buah Maja

Table Analyzed	Cekok Maja Darah
Column D	Hipoksia 14 hari
vs.	vs.
Column A	Normoksia
Mann Whitney test	
P value	0.0286
Exact or approximate P value?	Exact
P value summary	*
Significantly different (P < 0.05)?	Yes
One- or two-tailed P value?	Two-tailed
Sum of ranks in column A,D	10 , 26
Mann-Whitney U	0
Difference between medians	
Median of column A	0.2115, n=4
Median of column D	0.7025, n=4
Difference: Actual	0.491
Difference: Hodges-Lehmann	0.4865

Tabel 19 Perbandingan Kadar MDA pada Ginjal Perlakuan Normoksia dengan Hipoksia 3 Hari pada Tikus Kontrol

Table Analyzed	Kontrol Ginjal
Column B	Hipoksia 3 hari
vs.	vs.
Column A	Normoksia
Mann Whitney test	
P value	0.0286
Exact or approximate P value?	Exact
P value summary	*
Significantly different (P < 0.05)?	Yes
One- or two-tailed P value?	Two-tailed
Sum of ranks in column A,B	10 , 26
Mann-Whitney U	0
Difference between medians	
Median of column A	1.181, n=4
Median of column B	1.68, n=4
Difference: Actual	0.4995
Difference: Hodges-Lehmann	0.533



Tabel 20 Perbandingan Kadar MDA pada Ginjal Perlakuan Normoksia dengan Hipoksia 7 Hari pada Tikus Kontrol

Table Analyzed	Kontrol Ginjal
Column C	Hipoksia 7 hari
vs.	vs.
Column A	Normoksia
Mann Whitney test	
P value	0.0286
Exact or approximate P value?	Exact
P value summary	*
Significantly different (P < 0.05)?	Yes
One- or two-tailed P value?	Two-tailed
Sum of ranks in column A,C	10 , 26
Mann-Whitney U	0
Difference between medians	
Median of column A	1.181, n=4
Median of column C	2.306, n=4
Difference: Actual	1.125
Difference: Hodges-Lehmann	1.125

Tabel 21 Perbandingan Kadar MDA pada Ginjal Perlakuan Normoksia dengan Hipoksia 14 Hari pada Tikus Kontrol

Table Analyzed	Kontrol Ginjal
Column D	Hipoksia 14 hari
vs.	vs.
Column A	Normoksia
Mann Whitney test	
P value	0.0286
Exact or approximate P value?	Exact
P value summary	*
Significantly different (P < 0.05)?	Yes
One- or two-tailed P value?	Two-tailed
Sum of ranks in column A,D	10 , 26
Mann-Whitney U	0
Difference between medians	
Median of column A	1.181, n=4
Median of column D	3.02, n=4
Difference: Actual	1.839
Difference: Hodges-Lehmann	1.818

Tabel 22 Perbandingan Kadar MDA pada Ginjal Perlakuan Normoksia dengan Hipoksia 3 Hari pada Tikus Dicekok Ekstrak Buah Maja

Table Analyzed	Cekok Maja Ginjal
Column B	Hipoksia 3 hari
vs.	vs.
Column A	Normoksia
Mann Whitney test	
P value	0.0286
Exact or approximate P value?	Exact
P value summary	*
Significantly different (P < 0.05)?	Yes
One- or two-tailed P value?	Two-tailed
Sum of ranks in column A,B	10 , 26
Mann-Whitney U	0
Difference between medians	
Median of column A	0.7105, n=4
Median of column B	1.248, n=4
Difference: Actual	0.537
Difference: Hodges-Lehmann	0.537

Tabel 23 Perbandingan Kadar MDA pada Ginjal Perlakuan Normoksia dengan Hipoksia 7 Hari pada Tikus Dicekok Ekstrak Buah Maja

Table Analyzed	Cekok Maja Ginjal
Column C	Hipoksia 7 hari
vs.	vs.
Column A	Normoksia
Mann Whitney test	
P value	0.0286
Exact or approximate P value?	Exact
P value summary	*
Significantly different (P < 0.05)?	Yes
One- or two-tailed P value?	Two-tailed
Sum of ranks in column A,C	10 , 26
Mann-Whitney U	0
Difference between medians	
Median of column A	0.7105, n=4
Median of column C	2.079, n=4
Difference: Actual	1.368
Difference: Hodges-Lehmann	1.364

Tabel 24 Perbandingan Kadar MDA pada Ginjal Perlakuan Normoksia dengan Hipoksia 14 Hari pada Tikus Dicekok Ekstrak Buah Maja

Table Analyzed	Cekok Maja Ginjal
Column D	Hipoksia 14 hari
vs.	vs.
Column A	Normoksia
Mann Whitney test	
P value	0.0286
Exact or approximate P value?	Exact
P value summary	*
Significantly different (P < 0.05)?	Yes
One- or two-tailed P value?	Two-tailed
Sum of ranks in column A,D	10 , 26
Mann-Whitney U	0
Difference between medians	
Median of column A	0.7105, n=4
Median of column D	2.721, n=4
Difference: Actual	2.011
Difference: Hodges-Lehmann	2.011

Tabel 25 Perbandingan Kadar MDA Darah Normoksia pada Tikus yang Dicekok dengan Tikus Kontrol

Table Analyzed	GD Data
Column E	Normoksia Tidak Cekok
vs.	vs.
Column A	Normoksia Cekok
Mann Whitney test	
P value	0.2286
Exact or approximate P value?	Exact
P value summary	ns
Significantly different (P < 0.05)?	No
One- or two-tailed P value?	Two-tailed
Sum of ranks in column A,E	13.5 , 22.5
Mann-Whitney U	3.5
Difference between medians	
Median of column A	0.2115, n=4
Median of column E	0.2785, n=4
Difference: Actual	0.067
Difference: Hodges-Lehmann	0.074

Tabel 26 Perbandingan Kadar MDA Darah Hipoksia 3 Hari pada Tikus yang Dicekok dengan Tikus Kontrol

Table Analyzed	GD Data
Column F	Hipoksia 3 hari Tidak Cekok
vs.	vs.
Column B	hipoksia 3 hari Cekok
Mann Whitney test	
P value	0.0286
Exact or approximate P value?	Exact
P value summary	*
Significantly different (P < 0.05)?	Yes
One- or two-tailed P value?	Two-tailed
Sum of ranks in column B,F	10 , 26
Mann-Whitney U	0
Difference between medians	
Median of column B	0.4045, n=4
Median of column F	0.5055, n=4
Difference: Actual	0.101
Difference: Hodges-Lehmann	0.099

Tabel 27 Perbandingan Kadar MDA Darah Hipoksia 7 Hari pada Tikus yang Dicekok dengan Tikus Kontrol

Table Analyzed	GD Data
Column G	Hipoksia 7 hari Tidak Cekok
vs.	vs.
Column C	Hipoksia 7 hari Cekok
Mann Whitney test	
P value	0.0286
Exact or approximate P value?	Exact
P value summary	*
Significantly different (P < 0.05)?	Yes
One- or two-tailed P value?	Two-tailed
Sum of ranks in column C,G	10 , 26
Mann-Whitney U	0
Difference between medians	
Median of column C	0.505, n=4
Median of column G	0.631, n=4
Difference: Actual	0.126
Difference: Hodges-Lehmann	0.13

Tabel 28 Perbandingan Kadar MDA Darah Hipoksia 14 Hari pada Tikus yang Dicekok dengan Tikus Kontrol

Table Analyzed	GD Data
Column H	Hipoksia 14 hari Tidak Cekok
vs.	vs.
Column D	Hipoksia 14 hari Cekok
Mann Whitney test	
P value	0.0286
Exact or approximate P value?	Exact
P value summary	*
Significantly different (P < 0.05)?	Yes
One- or two-tailed P value?	Two-tailed
Sum of ranks in column D,H	10 , 26
Mann-Whitney U	0
Difference between medians	
Median of column D	0.7025, n=4
Median of column H	0.879, n=4
Difference: Actual	0.1765
Difference: Hodges-Lehmann	0.1765

Tabel 29 Perbandingan Kadar MDA Ginjal Normoksia pada Tikus yang Dicekok dengan Tikus Kontrol

Table Analyzed	GG Data
Column E	Normoksia Tidak Cekok
vs.	vs.
Column A	Normoksia Cekok
Mann Whitney test	
P value	0.0286
Exact or approximate P value?	Exact
P value summary	*
Significantly different (P < 0.05)?	Yes
One- or two-tailed P value?	Two-tailed
Sum of ranks in column A,E	10 , 26
Mann-Whitney U	0
Difference between medians	
Median of column A	0.7105, n=4
Median of column E	1.181, n=4
Difference: Actual	0.47
Difference: Hodges-Lehmann	0.466

Tabel 30 Perbandingan Kadar MDA Ginjal Hipoksia 3 Hari pada Tikus yang Dicekok dengan Tikus Kontrol

Table Analyzed	GG Data
Column F vs. Column B	Hipoksia 3 hari Tidak Cekok vs. hipoksia 3 hari Cekok
Mann Whitney test	
P value	0.0286
Exact or approximate P value?	Exact
P value summary	*
Significantly different (P < 0.05)?	Yes
One- or two-tailed P value?	Two-tailed
Sum of ranks in column B,F	10 , 26
Mann-Whitney U	0
Difference between medians	
Median of column B	1.248, n=4
Median of column F	1.68, n=4
Difference: Actual	0.4325
Difference: Hodges-Lehmann	0.4325

Tabel 31 Perbandingan Kadar MDA Ginjal Hipoksia 7 Hari pada Tikus yang Dicekok dengan Tikus Kontrol

Table Analyzed	GG Data
Column G vs. Column C	Hipoksia 7 hari Tidak Cekok vs. Hipoksia 7 hari Cekok
Mann Whitney test	
P value	0.2000
Exact or approximate P value?	Exact
P value summary	ns
Significantly different (P < 0.05)?	No
One- or two-tailed P value?	Two-tailed
Sum of ranks in column C,G	13 , 23
Mann-Whitney U	3
Difference between medians	
Median of column C	2.079, n=4
Median of column G	2.306, n=4
Difference: Actual	0.227
Difference: Hodges-Lehmann	0.227

Tabel 32 Perbandingan Kadar MDA Ginjal Hipoksia 14 Hari pada Tikus yang Dicekok dengan Tikus Kontrol

Table Analyzed	GG Data
Column H vs. Column D	Hipoksia 14 hari Tidak Cekok vs. Hipoksia 14 hari Cekok
Mann Whitney test	
P value	0.3429
Exact or approximate P value?	Exact
P value summary	ns
Significantly different (P < 0.05)?	No
One- or two-tailed P value?	Two-tailed
Sum of ranks in column D,H	14 , 22
Mann-Whitney U	4
Difference between medians	
Median of column D	2.721, n=4
Median of column H	3.02, n=4
Difference: Actual	0.2985
Difference: Hodges-Lehmann	0.181

Tabel 33 data duplo darah kontrol normoksia

	Absorbansi (Duplo)		Rata-Rata	Kadar MDA
	I	II	Absorbansi	(nmol/mL)
Tikus 1	0.046	0.042	0.044	0.325
Tikus 2	0.037	0.033	0.035	0.249
Tikus 3	0.039	0.045	0.042	0.308
Tikus 4	0.033	0.036	0.0347	0.246
Rata-Rata			0.0389	0.282

Tabel 34 data duplo darah kontrol hipoksia 3 hari

	Absorbansi (Duplo)		Rata-Rata	Kadar MDA
	I	II	Absorbansi	(nmol/mL)
Tikus 1	0.064	0.07	0.067	0.518
Tikus 2	0.06	0.068	0.064	0.493
Tikus 3	0.075	0.067	0.071	0.551
Tikus 4	0.065	0.062	0.0635	0.488
	Rata-Rata		0.066	0.512

Tabel 35 data duplo darah kontrol hipoksia 7 hari

	Absorbansi (Duplo)		Rata-Rata	Kadar MDA
	I	II	Absorbansi	(nmol/mL)
Tikus 1	0.076	0.078	0.077	0.602
Tikus 2	0.083	0.087	0.085	0.669
Tikus 3	0.085	0.081	0.083	0.652
Tikus 4	0.081	0.075	0.078	0.61
	Rata-Rata		0.0808	0.633

Tabel 36 data duplo darah kontrol hipoksia 14 hari

	Absorbansi (Duplo)		Rata-Rata	Kadar MDA
	I	II	Absorbansi	(nmol/mL)
Tikus 1	0.11	0.108	0.109	0.87
Tikus 2	0.108	0.114	0.111	0.887
Tikus 3	0.125	0.117	0.121	0.971
Tikus 4	0.107	0.103	0.105	0.837
	Rata-Rata		0.111	0.891



Tabel 37 data duplo darah cekok normoksia

	Absorbansi (Duplo)		Rata-Rata	Kadar MDA
	I	II	Absorbansi	(nmol/mL)
Tikus 1	0.029	0.021	0.025	0.165
Tikus 2	0.036	0.034	0.035	0.249
Tikus 3	0.04	0.036	0.038	0.274
Tikus 4	0.031	0.021	0.026	0.173
	Rata-Rata		0.031	0.215

Tabel 38 data duplo darah cekok hipoksia 3 hari

	Absorbansi (Duplo)		Rata-Rata	Kadar MDA
	I	II	Absorbansi	(nmol/mL)
Tikus 1	0.06	0.048	0.054	0.409
Tikus 2	0.056	0.048	0.052	0.392
Tikus 3	0.062	0.044	0.053	0.4
Tikus 4	0.063	0.049	0.056	0.425
	Rata-Rata		0.053	0.406

Tabel 39 data duplo darah cekok hipoksia 7 hari

	Absorbansi (Duplo)		Rata-Rata	Kadar MDA
	I	II	Absorbansi	(nmol/mL)
Tikus 1	0.061	0.071	0.066	0.509
Tikus 2	0.07	0.06	0.065	0.501
Tikus 3	0.065	0.059	0.062	0.476
Tikus 4	0.072	0.064	0.068	0.526
	Rata-Rata		0.065	0.503

Tabel 40 data duplo darah cekok hipoksia 14 hari

	Absorbansi (Duplo)		Rata-Rata	Kadar MDA
	I	II	Absorbansi	(nmol/mL)
Tikus 1	0.11	0.07	0.09	0.711
Tikus 2	0.089	0.083	0.086	0.677
Tikus 3	0.092	0.084	0.088	0.694
Tikus 4	0.095	0.087	0.091	0.719
	Rata-Rata		0.088	0.7

Tabel 41 data duplo ginjal kontrol normoksia

	Absorbansi (Duplo)		Rata-Rata	Kadar MDA
	I	II	Absorbansi	(nmol/mL)
Tikus 1	0.14	0.1	0.12	0.962
Tikus 2	0.17	0.166	0.168	1.365
Tikus 3	0.158	0.154	0.156	1.264
Tikus 4	0.138	0.134	0.136	1.097
	Rata-Rata		0.145	1.172

Tabel 42 data duplo ginjal kontrol hipoksia 3 hari

	Absorbansi (Duplo)		Rata-Rata	Kadar MDA
	I	II	Absorbansi	(nmol/mL)
Tikus 1	0.2	0.196	0.198	1.617
Tikus 2	0.223	0.219	0.221	1.81
Tikus 3	0.206	0.202	0.204	1.667
Tikus 4	0.209	0.205	0.207	1.693
	Rata-Rata		0.2075	1.69675

Tabel 43 data duplo ginjal kontrol hipoksia 7 hari

	Absorbansi (Duplo)		Rata-Rata	Kadar MDA
	I	II	Absorbansi	(nmol/mL)
Tikus 1	0.29	0.286	0.288	2.373
Tikus 2	0.299	0.295	0.297	2.448
Tikus 3	0.265	0.261	0.263	2.163
Tikus 4	0.274	0.27	0.272	2.238
	Rata-Rata		0.28	2.3055

Tabel 44 data duplo ginjal kontrol hipoksia 14 hari

	Absorbansi (Duplo)		Rata-Rata	Kadar MDA
	I	II	Absorbansi	(nmol/mL)
Tikus 1	0.32	0.316	0.318	2.373
Tikus 2	0.388	0.384	0.386	2.448
Tikus 3	0.353	0.349	0.351	2.163
Tikus 4	0.341	0.337	0.339	2.238
	Rata-Rata		0.3485	2.3055

Tabel 45 data duplo ginjal cekok normoksia

	Absorbansi (Duplo)		Rata-Rata	Kadar MDA
	I	II	Absorbansi	(nmol/mL)
Tikus 1	0.097	0.093	0.095	0.752
Tikus 2	0.088	0.084	0.086	0.677
Tikus 3	0.094	0.09	0.092	0.727
Tikus 4	0.09	0.086	0.088	0.694
	Rata-Rata		0.09025	0.7125

Tabel 46 data duplo ginjal cekok hipoksia 3 hari

	Absorbansi (Duplo)		Rata-Rata	Kadar MDA
	I	II	Absorbansi	(nmol/mL)
Tikus 1	0.154	0.15	0.152	1.231
Tikus 2	0.15	0.146	0.148	1.197
Tikus 3	0.158	0.154	0.156	1.264
Tikus 4	0.17	0.166	0.168	1.365
	Rata-Rata		0.156	1.26425

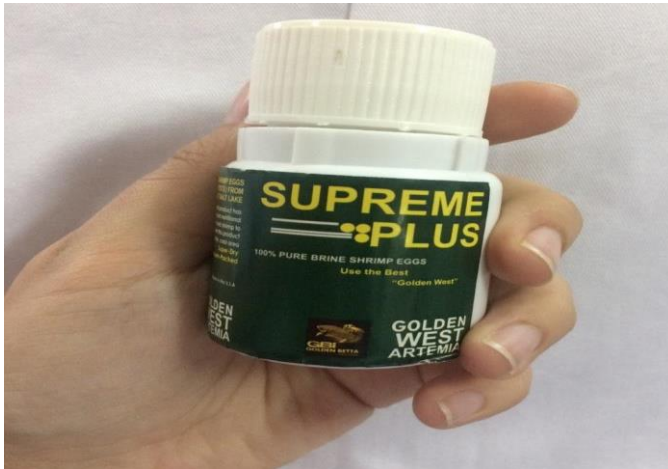
Tabel 47 data duplo ginjal cekok hipoksia 7 hari

	Absorbansi (Duplo)		Rata-Rata	Kadar MDA
	I	II	Absorbansi	(nmol/mL)
Tikus 1	0.264	0.26	0.262	2.154
Tikus 2	0.295	0.291	0.293	2.415
Tikus 3	0.246	0.242	0.244	2.003
Tikus 4	0.209	0.205	0.207	1.693
	Rata-Rata		0.2515	2.06625

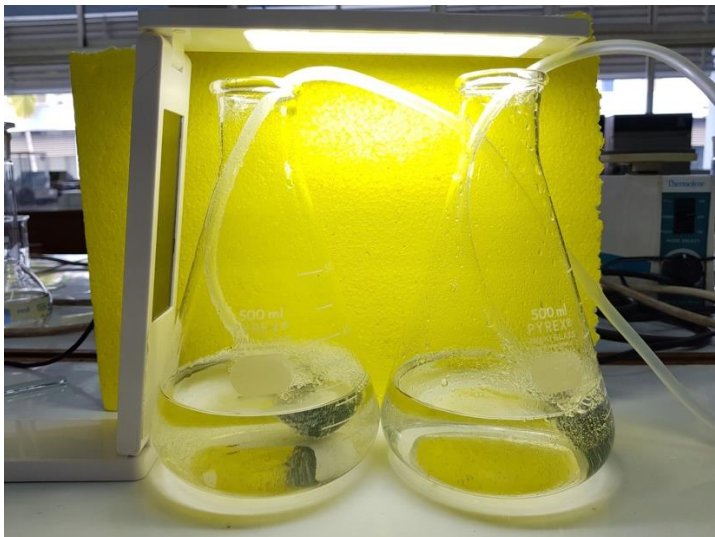
Tabel 48 data duplo ginjal cekok hipoksia 14 hari

	Absorbansi (Duplo)		Rata-Rata	Kadar MDA
	I	II	Absorbansi	(nmol/mL)
Tikus 1	0.301	0.297	0.299	2.465
Tikus 2	0.329	0.325	0.327	2.7
Tikus 3	0.373	0.369	0.371	3.07
Tikus 4	0.334	0.33	0.332	2.742
	Rata-Rata		0.33225	2.74425

**LAMPIRAN-4 : Foto Alat dan Dokumentasi Selama Pekerjaan**



Gambar telur udang *Artemia salina*



Gambar penetasan telur udang dengan lampu



Gambar pengambilan 10 butir telur udang  
Universitas Tarumanagara



Gambar buah pemotongan buah maja



Gambar pengeringan buah maja



Gambar pewarnaan PA  
Universitas Tarumanagara





Gambar chamber, tikus , soda lime, dan tabung gas saat proses hipoksia