

Lampiran 1. Lembar persetujuan etik



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**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:

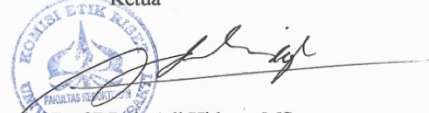
**"PENGARUH PEMBERIAN EKSTRAK BUAH *AEGLE MARMELLOS* TERHADAP STRES OKSIDATIF PADA PARU TIKUS *SPRAGUE DAWLEY* YANG DIINDUKSI HIPOKSIA"**

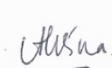
Peneliti Utama : Natasha Olivia Christian

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 buah *Aegle marmelos*

 **LEMBAGA ILMU PENGETAHUAN INDONESIA**  
**(INDONESIAN INSTITUTE OF SCIENCES)**  
**PUSAT PENELITIAN BIOLOGI**  
**(RESEARCH CENTER FOR BIOLOGY)**  
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Telp. (+62 21) 87907636 - 87907604, Fax. 87907612  
Website : www.biologi.lipi.go.id

Cibinong, Agustus 2017

Nomor : ~~2008~~/IPH.1.01/If.07/VIII/2017  
Lampiran : -  
Perihal : Hasil identifikasi/determinasi Tumbuhan


Kepada Yth.  
Bpk./Ibu/Sdr(i). **Erica 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

C:\Users\windows 7\Desktop\dokumen lii\Ident 2017\Erica Eksany OKE.doc\Mega-Narti  
Page 1 of 1

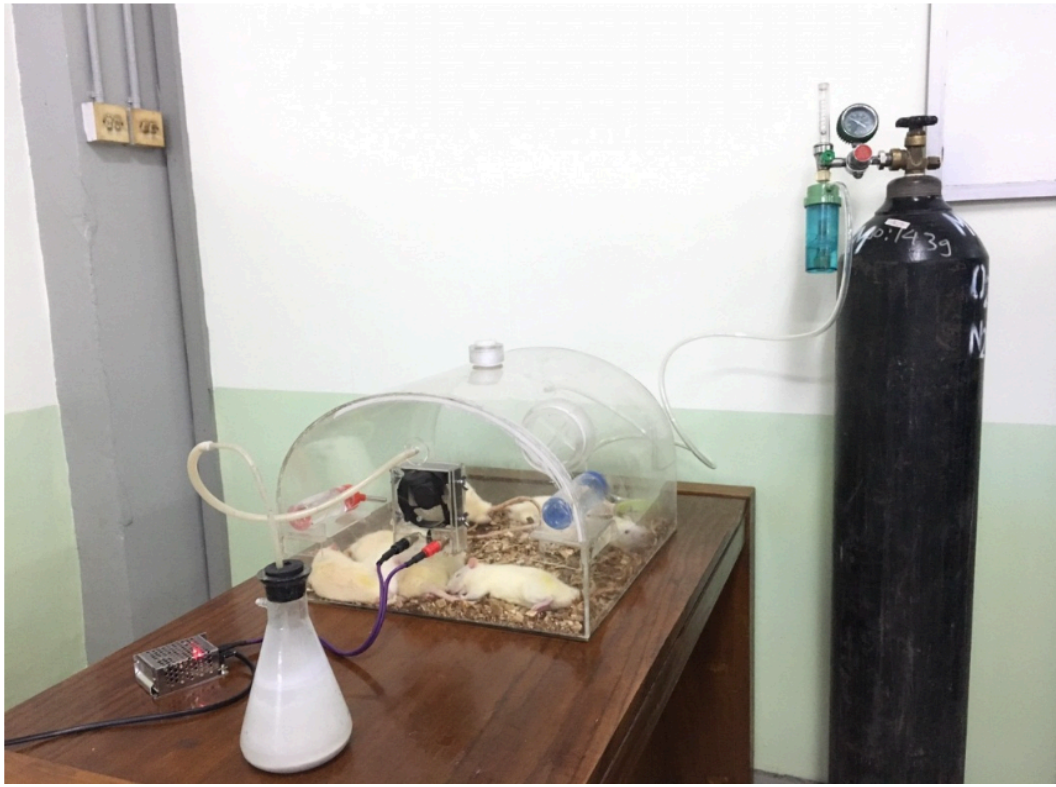
Lampiran 3. Buah *Aegle marmelos* dan proses pengeringan



Lampiran 4. Proses anestesi, pengambilan organ dan darah tikus *Sprague Dawley*



Lampiran 5. Perlakuan hipoksia menggunakan *hypoxic chamber*



Lampiran 6. Perbandingan GSH paru antara normoksia dengan hipoksia 3 hari tikus cekok

Table Analyzed	Paru cekok
Column A	Normoksia
vs.	vs.
Column B	Hipoksia 3
Mann Whitney test	
P value	0.1143
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,B	23.00 , 13.00
Mann-Whitney U	3.000
Difference between medians	
Median of column A	1.930
Median of column B	1.888
Difference: Actual	0.04230
Difference: Hodges-Lehmann	0.04230

Lampiran 7. Perbandingan GSH paru antara normoksia dengan hipoksia 7 hari tikus cekok

Table Analyzed	Paru cekok
Column A	Normoksia
vs.	vs.
Column C	Hipoksia 7
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	26.00 , 10.00
Mann-Whitney U	0.0
Difference between medians	
Median of column A	1.930
Median of column C	1.761
Difference: Actual	0.1692
Difference: Hodges-Lehmann	0.1692

Lampiran 8. Perbandingan GSH paru antara normoksia dengan hipoksia 14 hari tikus cekok

Table Analyzed	Paru cekok
Column A	Normoksia
vs.	vs.
Column D	Hipoksia 14
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	26.00 , 10.00
Mann-Whitney U	0.0
Difference between medians	
Median of column A	1.930
Median of column D	1.698
Difference: Actual	0.2327
Difference: Hodges-Lehmann	0.2538



Lampiran 9. Perbandingan GSH paru antara normoksia dengan hipoksia 3 hari tikus kontrol

Table Analyzed	Paru Kontrol
Column A	Normoksia
vs.	vs.
Column B	Hipoksia 3
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	26.00 , 10.00
Mann-Whitney U	0.0
Difference between medians	
Median of column A	1.824
Median of column B	1.719
Difference: Actual	0.1058
Difference: Hodges-Lehmann	0.1269

Lampiran 10. Perbandingan GSH paru antara normoksia dengan hipoksia 7 hari tikus kontrol

Table Analyzed	Paru Kontrol
Column A	Normoksia
vs.	vs.
Column C	Hipoksia 7
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	26.00 , 10.00
Mann-Whitney U	0.0
Difference between medians	
Median of column A	1.824
Median of column C	1.634
Difference: Actual	0.1904
Difference: Hodges-Lehmann	0.2115

Lampiran 11. Perbandingan GSH paru antara normoksia dengan hipoksia 14 hari tikus kontrol

Table Analyzed	Paru Kontrol
Column A	Normoksia
vs.	vs.
Column D	Hipoksia 14
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	26.00 , 10.00
Mann-Whitney U	0.0
Difference between medians	
Median of column A	1.824
Median of column D	1.486
Difference: Actual	0.3384
Difference: Hodges-Lehmann	0.3807

Lampiran 12. Perbandingan GSH darah antara normoksia dengan hipoksia 3 hari tikus cekok

Table Analyzed	Darah cekok
Column A	Normoksia
vs.	vs.
Column B	Hipoksia 3
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	26.00 , 10.00
Mann-Whitney U	0.0
Difference between medians	
Median of column A	7.895
Median of column B	3.284
Difference: Actual	4.611
Difference: Hodges-Lehmann	4.695

Lampiran 13. Perbandingan GSH darah antara normoksia dengan hipoksia 7 hari tikus cekok

Table Analyzed	Darah cekok
Column A	Normoksia
vs.	vs.
Column C	Hipoksia 7
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	26.00 , 10.00
Mann-Whitney U	0.0
Difference between medians	
Median of column A	7.895
Median of column C	2.311
Difference: Actual	5.584
Difference: Hodges-Lehmann	5.563

Lampiran 14. Perbandingan GSH darah antara normoksia dengan hipoksia 14 hari tikus cekok

Table Analyzed	Darah cekok
Column A	Normoksia
vs.	vs.
Column D	Hipoksia 14
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	26.00 , 10.00
Mann-Whitney U	0.0
Difference between medians	
Median of column A	7.895
Median of column D	2.226
Difference: Actual	5.668
Difference: Hodges-Lehmann	5.690

Lampiran 15. Perbandingan GSH darah antara normoksia dengan hipoksia 3 hari tikus kontrol

Table Analyzed	Darah Kontrol
Column A vs.	Normoksia vs.
Column B	Hipoksia 3
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	26.00 , 10.00
Mann-Whitney U	0.0
Difference between medians	
Median of column A	7.472
Median of column B	2.332
Difference: Actual	5.140
Difference: Hodges-Lehmann	5.140

Lampiran 16. Perbandingan GSH darah antara normoksia dengan hipoksia 7 hari tikus kontrol

Table Analyzed	Darah Kontrol
Column A	Normoksia
vs.	vs.
Column C	Hipoksia 7
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	26.00 , 10.00
Mann-Whitney U	0.0
Difference between medians	
Median of column A	7.472
Median of column C	1.930
Difference: Actual	5.541
Difference: Hodges-Lehmann	5.499



Lampiran 17. Perbandingan GSH darah antara normoksia dengan hipoksia 14 hari tikus kontrol

Table Analyzed	Darah Kontrol
Column A	Normoksia
vs.	vs.
Column D	Hipoksia 14
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	26.00 , 10.00
Mann-Whitney U	0.0
Difference between medians	
Median of column A	7.472
Median of column D	1.719
Difference: Actual	5.753
Difference: Hodges-Lehmann	5.711

Lampiran 18. Perbandingan GSH organ paru antara tikus cekok dengan kontrol normoksia

Table Analyzed	Paru cekok vs kontrol
Column B	NK
vs.	vs.
Column A	NC
Mann Whitney test	
P value	0.1143
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,B	24.50 , 11.50
Mann-Whitney U	1.500
Difference between medians	
Median of column A	1.930
Median of column B	1.824
Difference: Actual	-0.1058
Difference: Hodges-Lehmann	-0.1269

Lampiran 19. Perbandingan GSH organ paru antara tikus cekok dengan kontrol hipoksia 3 hari

Table Analyzed	Paru cekok vs kontrol
Column D	H3K
vs.	vs.
Column C	H3C
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,D	26.00 , 10.00
Mann-Whitney U	0.0
Difference between medians	
Median of column C	1.888
Median of column D	1.719
Difference: Actual	-0.1692
Difference: Hodges-Lehmann	-0.1692

Lampiran 20. Perbandingan GSH organ paru antara tikus cekok dengan kontrol hipoksia 7 hari

Table Analyzed	Paru cekok vs kontrol
Column F	H7K
vs.	vs.
Column E	H7C
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 E,F	26.00 , 10.00
Mann-Whitney U	0.0
Difference between medians	
Median of column E	1.761
Median of column F	1.634
Difference: Actual	-0.1269
Difference: Hodges-Lehmann	-0.1269

Lampiran 21. Perbandingan GSH organ paru antara tikus cekok dengan kontrol hipoksia 14 hari

Table Analyzed	Paru cekok vs kontrol
Column H	H14K
vs.	vs.
Column G	H14C
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 G,H	26.00 , 10.00
Mann-Whitney U	0.0
Difference between medians	
Median of column G	1.698
Median of column H	1.486
Difference: Actual	-0.2115
Difference: Hodges-Lehmann	-0.2327

Lampiran 22. Perbandingan GSH darah antara tikus cekok dengan kontrol normoksia

Table Analyzed	Darah cekok vs kontrol
Column B	NK
vs.	vs.
Column A	NC
Mann Whitney test	
P value	0.0571
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,B	25.00 , 11.00
Mann-Whitney U	1.000
Difference between medians	
Median of column A	7.895
Median of column B	7.472
Difference: Actual	-0.4230
Difference: Hodges-Lehmann	-0.4230

Lampiran 23. Perbandingan GSH darah antara tikus cekok dengan kontrol hipoksia 3 hari

Table Analyzed	Darah cekok vs kontrol
Column D	H3K
vs.	vs.
Column C	H3C
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,D	26.00 , 10.00
Mann-Whitney U	0.0
Difference between medians	
Median of column C	3.284
Median of column D	2.332
Difference: Actual	-0.9518
Difference: Hodges-Lehmann	-0.9306

Lampiran 24. Perbandingan GSH darah antara tikus cekok dengan kontrol hipoksia 7 hari

Table Analyzed	Darah cekok vs kontrol
Column F	H7K
vs.	vs.
Column E	H7C
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 E,F	22.50 , 13.50
Mann-Whitney U	3.500
Difference between medians	
Median of column E	2.311
Median of column F	1.930
Difference: Actual	-0.3807
Difference: Hodges-Lehmann	-0.3173



Lampiran 25. Perbandingan GSH darah antara tikus cekok dengan kontrol hipoksia 14 hari

Table Analyzed	Darah cekok vs kontrol
Column H	H14K
vs.	vs.
Column G	H14C
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 G,H	26.00 , 10.00
Mann-Whitney U	0.0
Difference between medians	
Median of column G	2.226
Median of column H	1.719
Difference: Actual	-0.5076
Difference: Hodges-Lehmann	-0.5076

Lampiran 26. Korelasi antara paru dengan darah tikus cekok

Pearson r	
r	0.8455
95% confidence interval	-0.6171 to 0.9967
R square	0.7149
P value	
P (two-tailed)	0.1545
P value summary	ns
Significant? (alpha = 0.05)	No
Number of XY Pairs	4

Lampiran 27. Korelasi antara paru dengan darah tikus kontrol

Pearson r	
r	0.8240
95% confidence interval	-0.6591 to 0.9962
R square	0.6791
P value	
P (two-tailed)	0.1760
P value summary	ns
Significant? (alpha = 0.05)	No
Number of XY Pairs	4

## DAFTAR RIWAYAT HIDUP

### A. Data Pribadi

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### B. Latar Belakang Pendidikan

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- 2009 – 2012 : SMP Kristen Sunodia
- 2012 – 2015 : SMA Kristen Sunodia
- 2015 – Sekarang : Universitas Tarumanagara Fakultas Kedokteran