

LAMPIRAN – 1 : Kaji Etik



**KOMISI ETIK RISET
FAKULTAS KEDOKTERAN
UNIVERSITAS TRISAKTI**
Jalan Kyai Tapa, Grogol, (Kampus B) Jakarta 11440
Telp: (021) 5672731, 5655786
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PERSETUJUAN ETIK *Ethical Clearance* **Nomor: 143/KER/FK/I/2019**

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 DAUN STROBERI
(FRAGARIA VESCA) TERHADAP KADAR MALONDIALDEHID
(MDA) PADA ORGAN PARU DAN DARAH TIKUS SPRAGUE
DAWLEY SETELAH DIINDUKSI HIPOKSIA"**

Peneliti Utama : Olivia Margaretha

Lembaga/Tempat penelitian : FK Universitas Tarumanagara

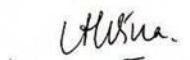
Dinyatakan memenuhi persyaratan etik untuk dilaksanakan.

Jakarta, 17 Januari 2019

Ketua

Prof. DR. dr. Adi Hidayat, MS

Sekretaris


dr. Alvina. SpPK

LAMPIRAN – 2 : Identifikasi Tanaman



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



Nomor : 865/IPH.1.01/If.07/IV/2018
Lampiran : -
Perihal : Hasil identifikasi/determinasi Tumbuhan

Cibinong, 6 April 2018

Kepada Yth.
Bpk./Ibu/Sdr(i). **Chindy Tjandra**
Mhs. 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	Strawberry	<i>Fragaria vesca</i> L.	Rosaceae
2	Raspberry	<i>Rubus idaeus</i> L.	Rosaceae
3	Blackberry	<i>Rubus</i> sp.	Rosaceae

Demikian, semoga berguna bagi Saudara.

Kepala Bidang Botani
Pusat Penelitian Biologi-LIPI,

Dr. Joeni Setijo Rahajoe
NIP. 196706241993032004

LAMPIRAN – 3 : Hasil Uji Invitro

Tabel 1 Regresi Linear Asam Askorbat

Best-fit values $\pm$ SE	
Slope	6,382 $\pm$ 0,1258
Y-intercept	19,49 $\pm$ 0,8347
X-intercept	-3,054
1/slope	0,1567
95% Confidence Intervals	
Slope	5,982 to 6,782
Y-intercept	16,83 to 22,15
X-intercept	-3,687 to -2,492
Goodness of Fit	
R square	0,9988
Sy.x	0,7958
Is slope significantly non-zero?	
F	2572
DFn, DFd	1, 3
P value	<0,0001
Deviation from zero?	Significant
Equation	$Y = 6,382 \cdot X + 19,49$
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

Best-fit values $\pm$ SE	
Slope	$0,2262 \pm 0,002905$
Y-intercept	$2,544 \pm 0,1669$
X-intercept	-11,25
1/slope	4,422
95% Confidence Intervals	
Slope	0,2169 to 0,2354
Y-intercept	2,013 to 3,075
X-intercept	-14,11 to -8,588
Goodness of Fit	
R square	0,9995
Sy.x	0,1837
Is slope significantly non-zero?	
F	6060
DFn, DFd	1, 3
P value	<0,0001
Deviation from zero?	Significant
Equation	$Y = 0,2262 \cdot X + 2,544$
Data	
Number of X values	5
Maximum number of Y replicates	1
Total number of values	5
Number of missing values	0

Tabel 3 Regresi Linear Fenolik

Best-fit values $\pm$ SE	
Slope	$0,00073 \pm 7,332e-005$
Y-intercept	$0,1188 \pm 0,0381$
X-intercept	-162,7
1/slope	1370
95% Confidence Intervals	
Slope	0,0004967 to 0,0009633
Y-intercept	-0,002447 to 0,24
X-intercept	-478,9 to 2,564
Goodness of Fit	
R square	0,9706
Sy.x	0,02319
Is slope significantly non-zero?	
F	99,13
DFn, DFd	1, 3
P value	0,0022
Deviation from zero?	Significant
Equation	$Y = 0,00073 * X + 0,1188$
Data	
Number of X values	5
Maximum number of Y replicates	1
Total number of values	5
Number of missing values	0

Tabel 4 Regresi Linear Alkaloid

Best-fit values $\pm$ SE	
Slope	0,001715 $\pm$ 0,0002174
Y-intercept	0,0481 $\pm$ 0,01442
X-intercept	-28,05
1/slope	583,1
95% Confidence Intervals	
Slope	0,001023 to 0,002407
Y-intercept	0,002209 to 0,09399
X-intercept	-89,38 to -0,9434
Goodness of Fit	
R square	0,954
Sy.x	0,01375
Is slope significantly non-zero?	
F	62,24
DFn, DFd	1, 3
P value	0,0042
Deviation from zero?	Significant
Equation	$Y = 0,001715 \cdot X + 0,0481$
Data	
Number of X values	5
Maximum number of Y replicates	1
Total number of values	5
Number of missing values	0

Tabel 5 Regresi Linear BSLT

Best-fit values $\pm$ SE	
Slope	33,43 $\pm$ 4,917
Y-intercept	5,386 $\pm$ 11,34
X-intercept	-0,1611
1/slope	0,02991
95% Confidence Intervals	
Slope	12,27 to 54,59
Y-intercept	-43,42 to 54,19
X-intercept	-4,267 to 0,8231
Goodness of Fit	
R square	0,9585
Sy.x	7,564
Is slope significantly non-zero?	
F	46,22
DFn, DFd	1, 2
P value	0,0210
Deviation from zero?	Significant
Equation	$Y = 33,43 \cdot X + 5,386$
Data	
Number of X values	4
Maximum number of Y replicates	1
Total number of values	4
Number of missing values	0

LAMPIRAN – 4 : Hasil Uji Invivo

Tabel 1 Regresi Linear Standar Protein

Best-fit values $\pm$ SE	
Slope	$0,8335 \pm 0,02395$
Y-intercept	$0,05981 \pm 0,01024$
X-intercept	$-0,07177$
1/slope	1,2
95% Confidence Intervals	
Slope	0,7748 to 0,8921
Y-intercept	0,03475 to 0,08488
X-intercept	-0,1081 to -0,03948
Goodness of Fit	
R square	0,9951
Sy.x	0,01806
Is slope significantly non-zero?	
F	1211
DFn, DFd	1, 6
P value	<0,0001
Deviation from zero?	Significant
Equation	$Y = 0,8335 * X + 0,05981$
Data	
Number of X values	8
Maximum number of Y replicates	1
Total number of values	8
Number of missing values	0

Tabel 2 Uji Darah Tidak Cekok 1 Hari

Table Analyzed	Darah -
Column B	1 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	26 , 10
Mann-Whitney U	0
Difference between medians	
Median of column A	57,76, n=4
Median of column B	44,93, n=4
Difference: Actual	-12,83
Difference: Hodges-Lehmann	-12,96

Tabel 3 Uji Darah Tidak Cekok 7 Hari

Table Analyzed	Darah -
Column C	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	26 , 10
Mann-Whitney U	0
Difference between medians	
Median of column A	57,76, n=4
Median of column C	32,87, n=4
Difference: Actual	-24,89
Difference: Hodges-Lehmann	-24,89

Tabel 4 Uji Darah Tidak Cekok 14 Hari

Table Analyzed	Darah -
Column D	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	26 , 10
Mann-Whitney U	0
Difference between medians	
Median of column A	57,76, n=4
Median of column D	27,65, n=4

Difference: Actual	-30,11
Difference: Hodges-Lehmann	-29,37

Tabel 5 Uji Darah Cekok 1 Hari

Table Analyzed	Darah +
Column B	1 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	26 , 10
Mann-Whitney U	0

Difference between medians

Median of column A	79,88, n=4
Median of column B	69,52, n=4
Difference: Actual	-10,36
Difference: Hodges-Lehmann	-10,51

Tabel 6 Uji Darah Cekok 7 Hari

Table Analyzed	Darah +
Column C	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	26 , 10
Mann-Whitney U	0
Difference between medians	
Median of column A	79,88, n=4
Median of column C	58,56, n=4
Difference: Actual	-21,32
Difference: Hodges-Lehmann	-21,71

Tabel 7 Uji Darah Cekok 14 Hari

Table Analyzed	Darah +
Column D	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	26 , 10
Mann-Whitney U	0

Difference between medians	
Median of column A	79,88, n=4
Median of column D	40,11, n=4
Difference: Actual	-39,77
Difference: Hodges-Lehmann	-40,02

Tabel 8 Uji Organ Paru Tidak Cekok 1 Hari

Table Analyzed	Paru -
Column B	1 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	26 , 10
Mann-Whitney U	0

Difference between medians	
Median of column A	7,192, n=4
Median of column B	6,543, n=4
Difference: Actual	-0,6486
Difference: Hodges-Lehmann	-0,5595

Tabel 9 Uji Organ Paru Tidak Cekok 7 Hari

Table Analyzed	Paru -
Column C	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	26 , 10
Mann-Whitney U	0
Difference between medians	
Median of column A	7,192, n=4
Median of column C	5,988, n=4
Difference: Actual	-1,204
Difference: Hodges-Lehmann	-1,204

Tabel 10 Uji Organ Paru Tidak Cekok 14 Hari

Table Analyzed	Paru -
Column D	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	26 , 10
Mann-Whitney U	0

Difference between medians

Median of column A	7,192, n=4
Median of column D	5,733, n=4
Difference: Actual	-1,459
Difference: Hodges-Lehmann	-1,459

Tabel 11 Uji Organ Paru Cekok 1 Hari

Table Analyzed	Paru +
Column B	1 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	26 , 10
Mann-Whitney U	0
Difference between medians	
Median of column A	9,327, n=4
Median of column B	8,878, n=4
Difference: Actual	-0,4490
Difference: Hodges-Lehmann	-0,4661

Tabel 12 Uji Organ Paru Cekok 7 Hari

Table Analyzed	Paru +
Column C	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	26 , 10
Mann-Whitney U	0
Difference between medians	
Median of column A	9,327, n=4
Median of column C	7,704, n=4
Difference: Actual	-1,623
Difference: Hodges-Lehmann	-1,759

Tabel 13 Uji Organ Paru Cekok 14 Hari

Table Analyzed	Paru +
Column D	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	26 , 10
Mann-Whitney U	0

Difference between medians	
Median of column A	9,327, n=4
Median of column D	6,978, n=4
Difference: Actual	-2,349
Difference: Hodges-Lehmann	-2,472

Tabel 14 Uji Perbandingan Darah Cekok dan Tidak Cekok

Table Analyzed	Darah (-)/(+) 1 Per 1 Mann-Whitney
Column E	Normoksia (+)
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,E	10 , 26
Mann-Whitney U	0

Difference between medians	
Median of column A	57,76, n=4

Median of column E	79,88, n=4
Difference: Actual	22,12
Difference: Hodges-Lehmann	23,23

Tabel 15 Uji Perbandingan Darah Cekok 1 Hari dan Tidak Cekok 1 Hari

Table Analyzed	Darah (-)/(+) 1 Per 1 Mann-Whitney
Column F	H1+
vs.	vs,
Column B	H1-
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	44,93, n=4
Median of column F	69,52, n=4
Difference: Actual	24,59
Difference: Hodges-Lehmann	25,59

Tabel 16 Uji Perbandingan Darah Cekok 7 Hari dan Tidak Cekok 7 Hari

Table Analyzed	Darah (-)/(+) 1 Per 1 Mann-Whitney
Column G	H7+
vs.	vs,
Column C	H7-

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	32,87, n=4
Median of column G	58,56, n=4
Difference: Actual	25,70
Difference: Hodges-Lehmann	25,49

Tabel 17 Uji Perbandingan Darah Cekok 14 Hari dan Tidak Cekok 14 Hari

Table Analyzed	Darah (-)/(+) 1 Per 1 Mann-Whitney
Column H	H14+
vs.	vs,
Column D	H14-
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	27,65, n=4
Median of column H	40,11, n=4
Difference: Actual	12,46
Difference: Hodges-Lehmann	12,46

Tabel 18 Uji Perbandingan Paru Cekok dan Tidak Cekok

Table Analyzed	Paru (-)/(+) 1 Per 1 Mann-Whitney
Column E	Normoksia (+)
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,E	10 , 26
Mann-Whitney U	0
Difference between medians	
Median of column A	7,192, n=4
Median of column E	9,327, n=4
Difference: Actual	2,135
Difference: Hodges-Lehmann	2,206

Tabel 19 Uji Perbandingan Paru Cekok 1 Hari dan Tidak Cekok 1 Hari

Table Analyzed	Paru (-)/(+) 1 Per 1 Mann-Whitney
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Column F	H1+
vs.	vs,
Column B	H1-
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	6,543, n=4
Median of column F	8,878, n=4
Difference: Actual	2,334
Difference: Hodges-Lehmann	2,274

Tabel 20 Uji Perbandingan Paru Cekok 7 Hari dan Tidak Cekok 7 Hari

Table Analyzed	Paru (-)/(+) 1 Per 1 Mann-Whitney
Column G	H7+
vs.	vs,
Column C	H7-
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	5,988, n=4
Median of column G	7,704, n=4
Difference: Actual	1,716
Difference: Hodges-Lehmann	1,583

Tabel 21 Uji Perbandingan Paru Cekok 14 Hari dan Tidak Cekok 14 Hari

Table Analyzed	Paru (-)/(+) 1 Per 1 Mann-Whitney
Column H	H14+
vs.	vs,
Column D	H14-
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	5,733, n=4
Median of column H	6,978, n=4
Difference: Actual	1,245
Difference: Hodges-Lehmann	1,082

Tabel 22 Korelasi Paru Tidak Cekok dan Darah Tidak Cekok

Best-fit values	
Slope	20,07
Y-intercept	-87,24
X-intercept	4,346
1/slope	0,04982
Std. Error	
Slope	0,1593
Y-intercept	1,022
95% Confidence Intervals	
Slope	19,39 to 20,76
Y-intercept	-91,63 to -82,84
X-intercept	4,271 to 4,416
Goodness of Fit	
R square	0,9999
Sy.x	0,1811
Is slope significantly non-zero?	
F	15868
DFn, DFd	1, 2
P value	<0,0001
Deviation from zero?	Significant
Equation	$Y = 20,07 * X - 87,24$
Data	
Number of X values	4
Maximum number of Y replicates	1
Total number of values	4

Number of missing values	0
Pearson r	
r	0,9999
95% confidence interval	0,9968 to 1,000
R squared	0,9999
P value	
P (two-tailed)	<0,0001
P value summary	****
Significant? (alpha = 0.05)	Yes
Number of XY Pairs	4

Tabel 23 Korelasi Paru Cekok dan Darah Cekok

Best-fit values	
Slope	13,87
Y-intercept	-50,19
X-intercept	3,617
1/slope	0,07208
Std. Error	
Slope	2,414
Y-intercept	19,76
95% Confidence Intervals	
Slope	3,486 to 24,26
Y-intercept	-135,2 to 34,84
X-intercept	-9,886 to 5,634
Goodness of Fit	
R square	0,9429
Sy.x	5,011

Is slope significantly non-zero?	
F	33,02
DFn, DFd	1, 2
P value	0,0290
Deviation from zero?	Significant
Equation	$Y = 13,87 * X - 50,19$
Data	
Number of X values	4
Maximum number of Y replicates	1
Total number of values	4
Number of missing values	0
Pearson r	
r	0,9710
95% confidence interval	0,1489 to 0,9994
R squared	0,9429
P value	
P (two-tailed)	0,0290
P value summary	*
Significant? (alpha = 0.05)	Yes
Number of XY Pairs	4

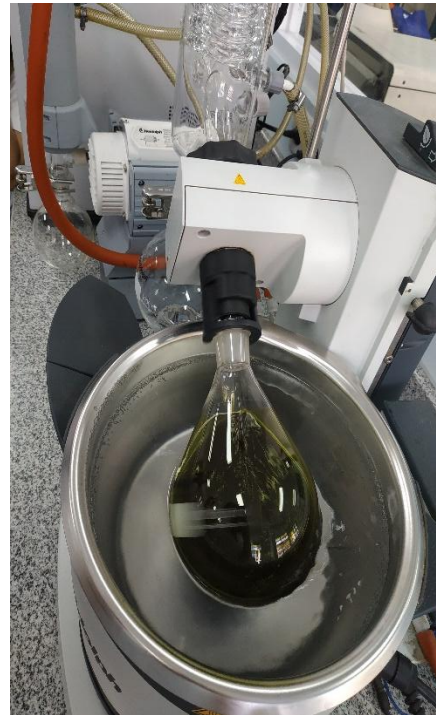
LAMPIRAN – 5 : Dokumentasi



Gambar 1 Proses Pengeringan Daun



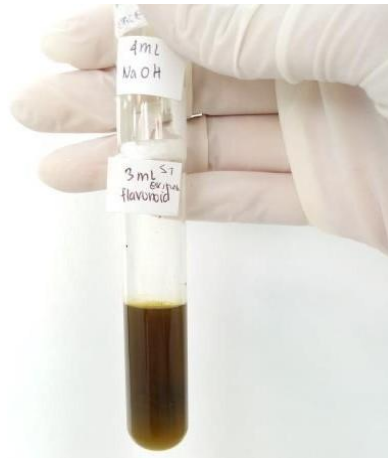
Gambar 2 Proses Maserasi



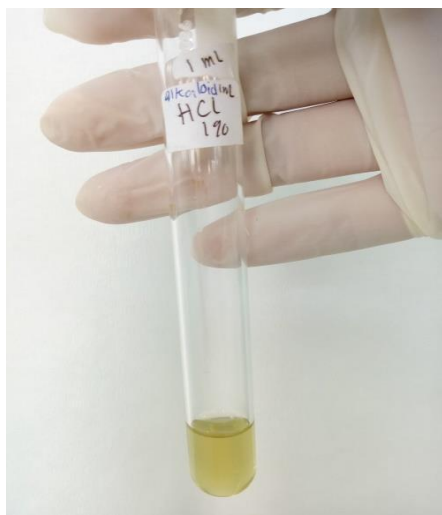
Gambar 3 Proses Evaporasi



Gambar 4 Hasil Uji Betasianin



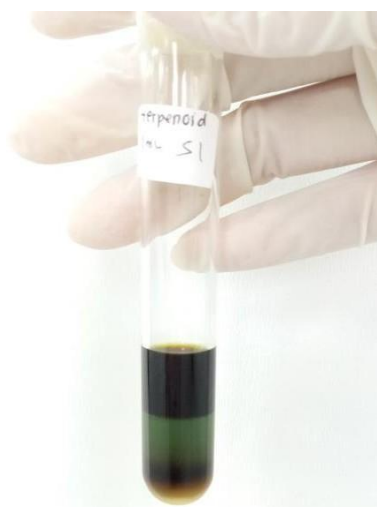
Gambar 5 Hasil Uji Flavonoid



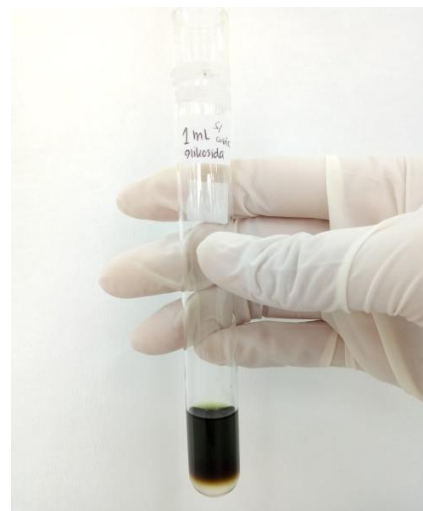
Gambar 6 Hasil Uji Alkaloid



Gambar 7 Hasil Uji Fenolik



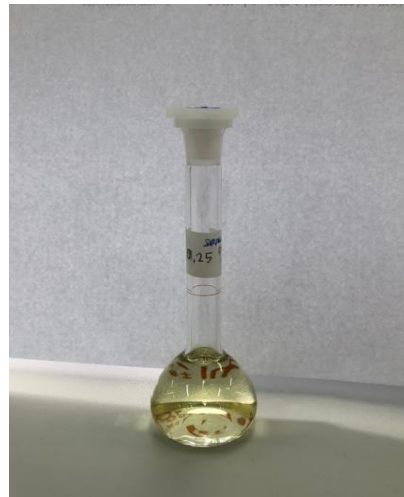
Gambar 8 Hasil Uji Terpenoid



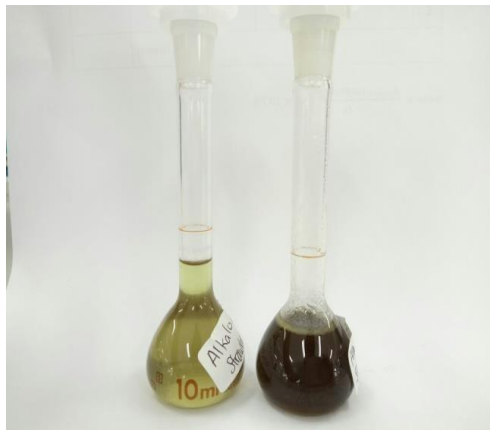
Gambar 9 Hasil Uji Kardio Glikosida



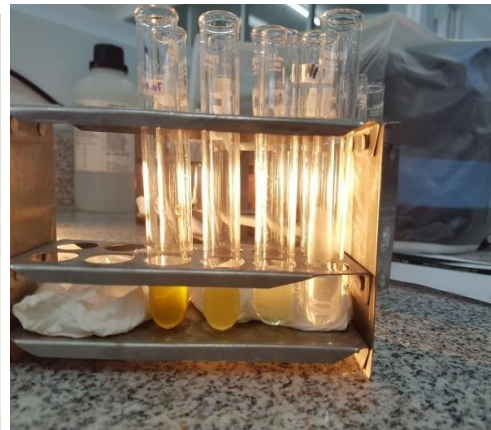
Gambar 10 Hasil Uji Steroid



Gambar 11 Hasil Uji DPPH



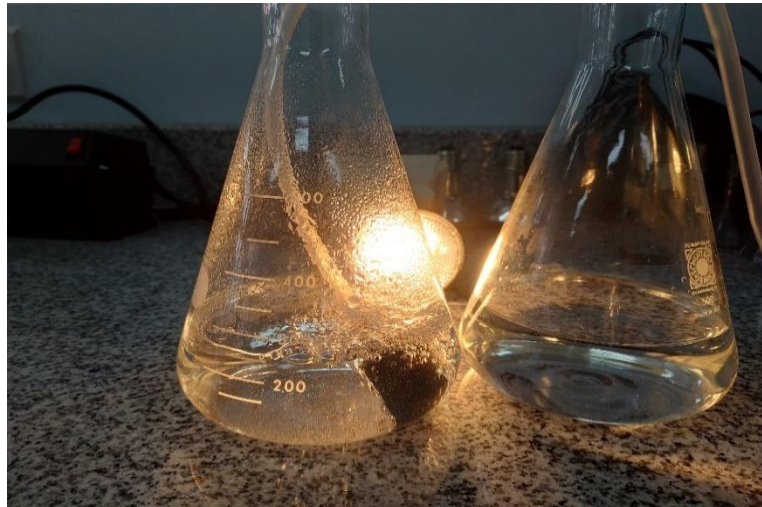
Gambar 12 Hasil Uji Alkaloid Total



Gambar 13 Hasil Uji BSLT



Gambar 14 Hasil Uji Fenolik



Gambar 15 Penetasan Larva Udang



Gambar 16 Sungkup Hipoksia



Gambar 17 Darah Tikus



Gambar 18 Proses Lisat Darah



Gambar 19 Organ Tikus

DAFTAR RIWAYAT HIDUP

DATA PRIBADI

- | | |
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